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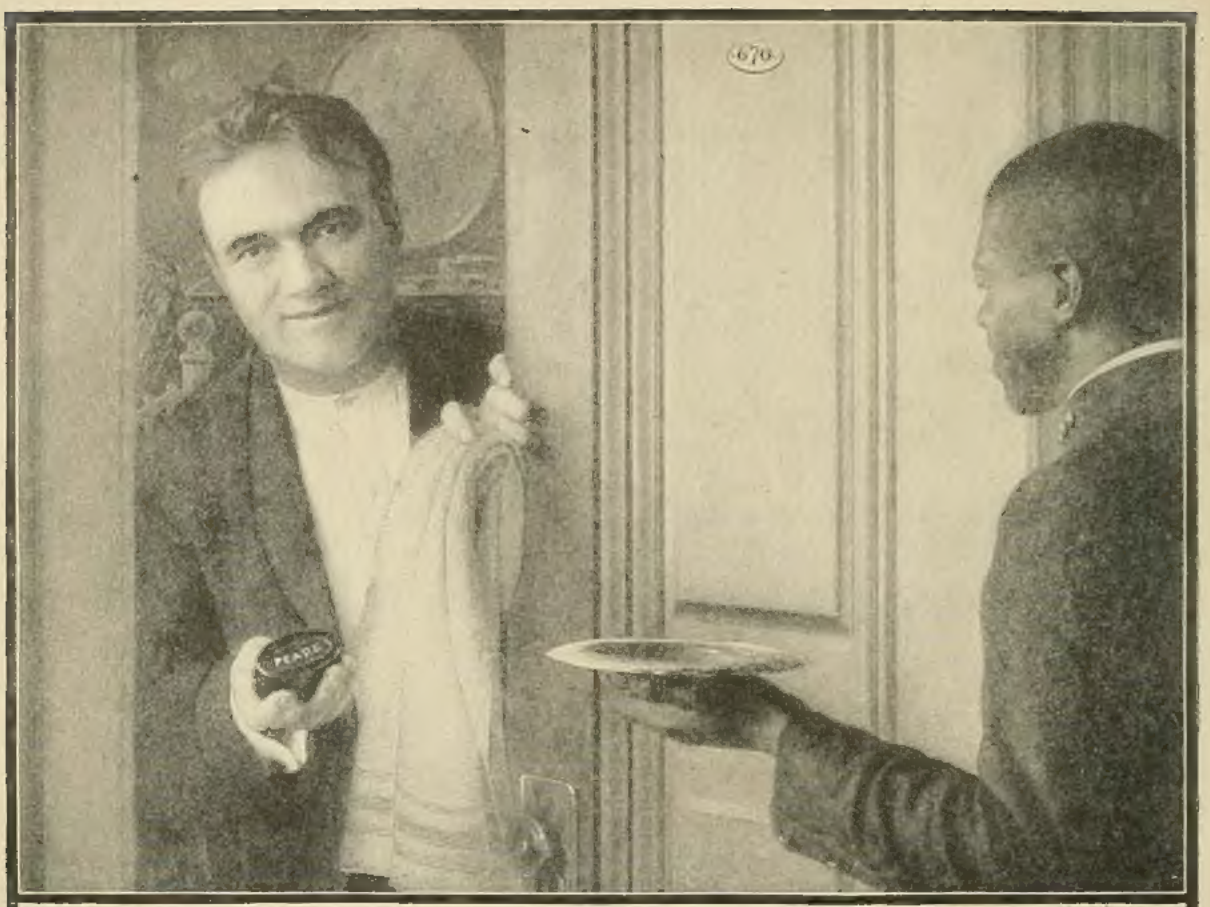
THE RAILROAD MAN'S MAGAZINE

APRIL



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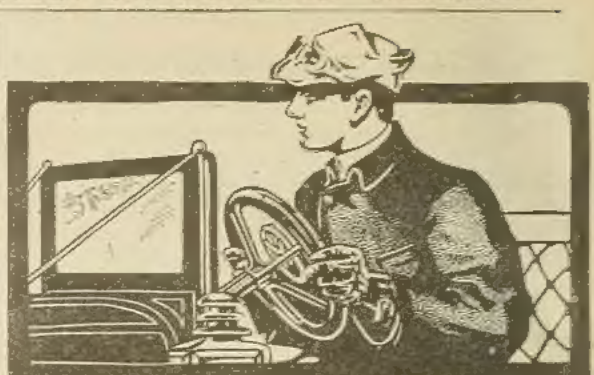

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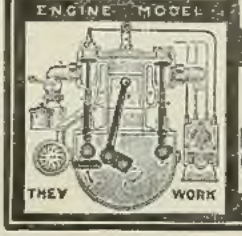

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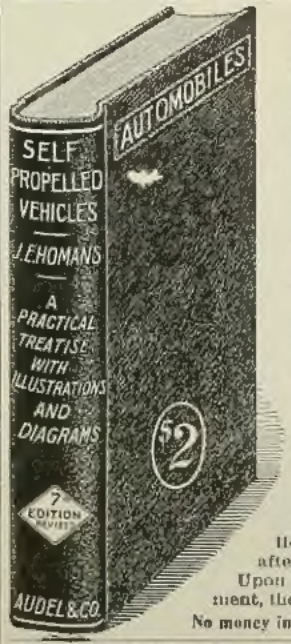

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THE RAILROAD MAN'S MAGAZINE

Vol. XIV. APRIL, 1911. No. 3.

In the Trail of the First Western Tracks.

BY R. M. WEST.

WHEN the first rails were laid across the vast territory west of the Mississippi River, little towns sprang up from place to place during a night. The pioneers who trudged in the path of the iron trail hoped that each rugged settlement might grow to a thriving metropolis, but so soon as a "new city" was established it was generally beset by a horde of outlaws—lawless desperadoes who cared no more for human life than for property—whose sole pastime was "taking a town." As Mr. West states, the saying was changed from "A word and a blow" to "An oath and a shot." The story he tells here is based on fact, and gives an adequate idea of the way in which the end-of-the-track settlements were at the mercy of bloodthirsty desperadoes.

Cheap John, V. C., Didn't Resemble a Gun Fighter in Size or Temperament, but He Managed to Clean Up His Town All Right.

THE days of the building of the railroads across the plains were the days of trouble and sudden death. The bad man was in his glory, but at no other time did the professional killer hold such undisputed sway as in the few years of the laying of the rails between Platte City, Nebraska, and Butte City, Montana.

Men were shot down for the slightest reason, and, sometimes for no reason at all. The old saying, "A word and a blow" was changed to "An oath and a shot." There seemed to be no law, either civil or military, which would reach those bloodthirsty, ruthless desperadoes.

I was in Julesburg, Colorado Territory, in the late sixties, on provost duty near Fort Sedgwick. One day, when walking along the sidewalk, I heard a shot. Looking behind me, I saw a man dead in the middle of the street, while ten feet away from the corpse stood another man I knew well, Jack Hayes, calmly blowing the smoke from his six-shooter. Hayes had been a

mule whacker at the fort. He had been on many a hard Indian chase with my old troop, M, in which I was a cavalryman.

He was considered a good fellow and was a brave man in danger. When he left the fort and the employ of Uncle Sam, his name was before the quartermaster for promotion to wagon-master.

But Hayes had been going to the bad. Now he had killed a man!

Just after the shot was fired, the town marshal appeared and made a pretense of arresting the murderer. However, he lacked nerve and only managed to coax Hayes to go with him to the justice of the peace. I thought I would like to see how the law would deal with his case, and, incidentally, I wanted to be sure than an ex-cavalryman got a square deal, so I also went down to the office of the justice.

His honor was an ex-clerk from the quartermaster's department at the fort and had accepted the office of justice against the advice of his friends. He accepted it no doubt because he thought he would be somebody in the new country, and that he might write back to "the States" on good-looking letter paper. He was a quiet gentleman with a great respect for the majesty of the law.

As I entered, he was seated at a desk on a small platform. The prisoner, with a pair of six-shooters still on his hips, stood talking to the marshal.

The judge ordered Hayes to step up closer. After hearing the evidence of a man who had seen the shooting, he asked Hayes what he had to say about the affair.

Hayes told of a dispute and a threat made by the dead man.

"So I shot him," he wound up.

The judge mused a while and rendered the following decision:

"I will turn the prisoner over to the county court, and as the charge is murder, I will set no bail. Marshal, you keep him safe until the train goes south; then take him to Platte City and put him in the keeping of the sheriff—"

Their Regard for Law.

This was all he had time to say when out came Hayes's six-shooters and down popped the judge behind his desk. Hayes backed out of the court-room, walked up the street, mounted his mule and rode out of town unmolested.

His honor was ridiculed, and everybody guyed the marshal.

So Jack Hayes, once a peaceful mule whacker, had become a terror to the bravest of marshals in the railroad towns. For six months he ran a "rig", wherein he killed many men and one woman—yet he was never arrested.

But there was a force coming to the front which was destined to put a stop to the killers, as they were called. This was a little, pale-faced, consumptive-looking man known as Cheap John. His right name was Smith. When he first made his appearance along the line of the Union Pacific Railroad, he pushed a hand-cart loaded with shirts, socks, suspenders, and other necessities of frontier haberdashery.

This insignificant little pedler was the last man in the world who would be picked out to regulate the doings of the Western desperado, but he was such a man. In time his name became a nightmare to evil-doers. When Cheyenne, Wyoming, was only a city of tents, Cheap John set up in the clothing business in a "ten-by-thirty" frame covered with canvas.

A Huge "Joke."

The story goes that he was such a cringing, helpless little fellow that outlaws, and even drunken loafers, would swagger into his place, cuff him around his own store, help themselves to his goods and walk out without paying. This was enough to break the heart of any man. In those days, every man carried the law in his own holster, and the weak went to their death without a murmur. Cheap John stood the cuffing and bullying, until, one day, three whisky-soaked cowboys entered and began their old game.

One of them, after rubbing the skin off the end of Cheap John's nose with the muzzle of his six-shooter, laid the cocked weapon on the counter, snaked the begging little merchant by the hair to the back of his store, then kicked him back again and under the counter.

While the three cowboys were roaring at the huge joke, Cheap John popped up on the other side of the counter, grabbed the six-shooter of the nearest man, and in three seconds and three shots killed all three men.

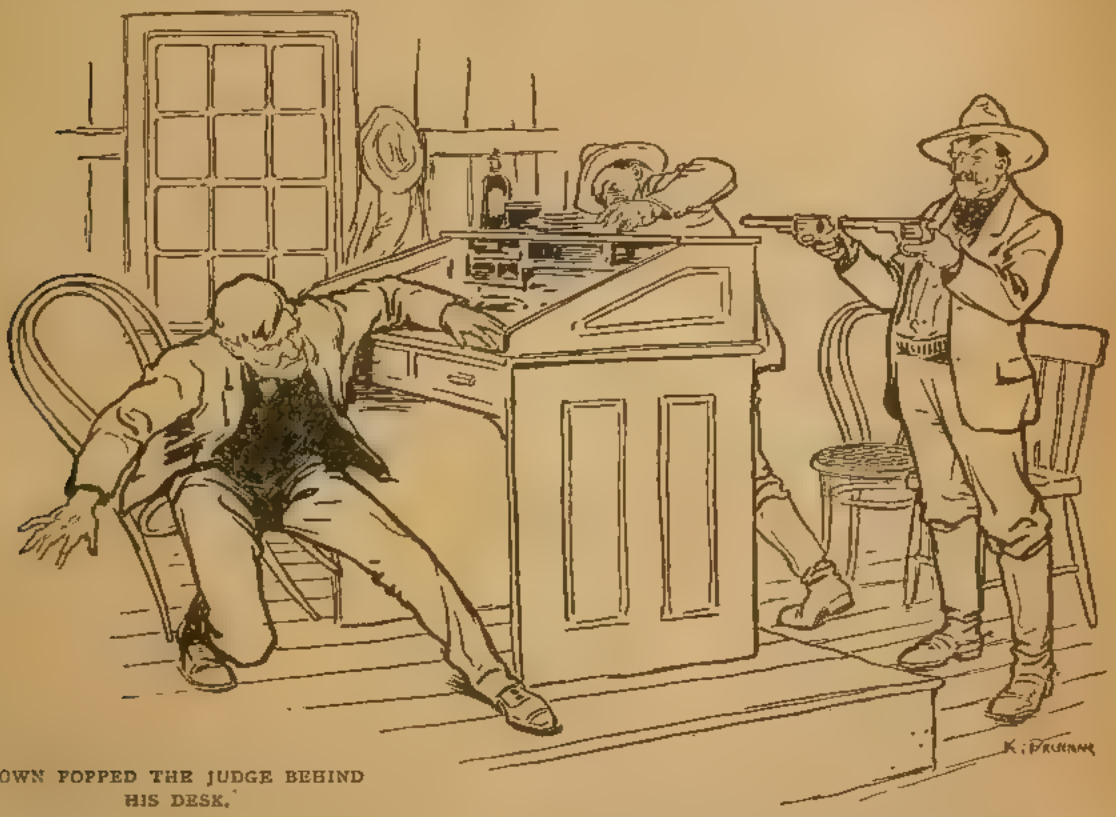
After that Cheap John was another man. He became a power in the wilderness. Like

a tiger raised in a cage, he had killed his masters, tasted human blood, and was a slave no longer. It quickly became known that the quickest and surest way to commit suicide was to kick Cheap John.

He not only ran his own store like clockwork, and his trade increased amazingly, but he started out to clean up the town.

However, Cheap John did not degenerate into a desperado, as so many others had done. He induced other business men to join him. They organized a quick acting, smooth-working vigilance committee with Cheap John as its mainspring.

This vigilance committee started to break up the gangs of gamblers, dance-hall masters, horse thieves, and desperadoes who followed the laying of the rails and turned the end-of-the-track towns into hovels where men shot "for the fun of seein' 'em kick."



DOWN POPPED THE JUDGE BEHIND HIS DESK.

The Worst "Gang."

One of the most desperate and heartless of these gangs was made up of Jack Hayes, now utterly reckless in regard to human life, Jack Keefe, and a man known only as "Shorty."

Keefe would not have been a bad sort of a fellow if he had left bad company and whisky alone and gone to work. "Shorty" was hopelessly depraved—an out-and-out river tough from the slums of Kansas City.

This trio thought nothing of going into any new place and "taking the town," as they called it, just for fun. It gave them a proper standing.

They would ride or walk up the middle of the main street shooting at everything and everybody in sight, laughing and yelling wildly, while the entire town suddenly suspended business and got under cover.

I do not believe that they always shot to kill, but enough killing was done to make their names bywords for terror from Platte City to the Promontory.

Some towns, however, maintained a marshal with Saint Vitus dance in his trigger-fingers, at a salary of five hundred dollars a month, for it was a ticklish job.

Kit Carson, New Mexico, was such a town. When Tom Thomson was holding it down, those man tigers took good care to keep away, or else they were very lamb-like whenever they paid it a visit.

One day Hayes, Keefe, and "Shorty" went to Cheyenne. They opened up in their regular style and ran afoul of Cheap John. They promptly got a notice from the vigilance committee to leave town inside of two hours or get strung up. They treated the notice as a joke.

Before the Guns.

Shortly after sundown the vigilance committee got after them, and only for the timely interference of the United States District Attorney, J. P. Bartlett, who was later Judge Bartlett, of Manchester, New Hampshire, their trail would have ended then and there. Judge Bartlett's influence was supreme over all at that time, and many a foolish young fellow had good cause to thank him for being saved from death at the end of a rope, though usually richly deserved.

I say "foolish," for many a young man who meant well, while under the influence of whisky, traveled the streets with the desperadoes, thinking they were doing something wonderful to be seen with them.

When the men with a rope got after them, however, they were only too glad to pray to the much respected district attorney to save them.

As the three killers suddenly looked into the guns of the V. C. they thought it high time to also beg to be brought before Judge Bartlett. Cheap John, wishing to give every man a fair show, sent for Mr. Bartlett. He walked down the line of men wearing black masks, and demanded the prisoners. It took some nerve for one man to do this, for when the vigilance committee got after any one, it meant business, but the V. C. had confidence in Bartlett, so the prisoners were surrendered.

The Three Cool Off.

Bartlett took the three men into his office. He and his deputy disarmed them, and put them under bonds to appear on Monday morning at ten for trial. He told them that it would be better for them not to give bonds, but to remain prisoners, but they put up their money, got their freedom —but not their weapons—and walked out.

It was not long, however, before they managed to get hold of a gun or two, and were on the war-path again.

All this time Cheap John had his eye on them, and when he did not his scouts did, and as the three killers began to warm up they got into some kind of a shooting scrape in a place called the Dewdrop Inn, cleaned it out and left.

When crossing the street to the Keystone Dance Hall, a friend of theirs overtook them. This man had just run into twenty of the vigilance committee who were marching up a side street two by two, masked, armed, carrying three ropes, with Cheap John at their head. This man had dogged the V. C. to give notice to the gang.

Hayes, Keefe, and "Shorty" cooled off at once, and became so thoroughly alarmed at the evident determination of the committee to hang them that they cut down the street on a run and left town.

They had not time to get their horses, so went afoot. This was a hardship, as well as a disgrace to a desperado, but they comforted themselves with the reflection that they could steal other horses just as good, even if they did have to waste a cartridge or two in killing the rightful owner.

At Dave Muller's.

They struggled on through the rain and mud until two in the morning, when they arrived, wet, muddy, tired, and ugly at the door of Dave Muller's ranch on Dale Creek.

They awoke him and he let them in. Soon they were stretched out on the floor.

Cheap John took ten of his best men and started after them on horseback. Taking the wrong trail, he missed them, but, fortunately, arrived at Dale Creek ahead of them. He did not expect to find them there.

Learning from a night herder who was holding a bunch of cattle near Muller's until daylight, that three men had just been rapping on Muller's door, the V. C. swung into the saddle and rode over to Muller's.

Without arousing anybody, Cheap John looked through the window and saw the men he was after. Concluding to wait until they were asleep before making the attack, he left a guard and rode back to the cow camp.

There he hired a heavy wagon and four mules. Driving it quietly over the muddy road back to the sleeping ranch-house, he unhitched the mules, and by hand, wheeled the wagon up to within fifty feet of the door—the stiff, heavy tongue ready to use as a battering-ram.

Two men held the tongue to guide it in case one should be shot down, while four more got behind the wagon to shove. Then the six with their battering-ram awaited Cheap John's further orders.

The rain had stopped falling and the moon was shining brightly. Inside, the three men and Muller were snoring. The vigilance committee was now ready to begin work.

The Rude Awakening.

Taking four men with him, Cheap John walked to the door and rapped. Muller growled, "Who's there now?"

"A friend," answered Cheap John.

"Well, get out, friend! I'm not a goin' to get up again till mornin'!"

John repeated the request and knocked again, this time with his six-shooter.

"No use, I tell you, friend," said Muller. "Pull your freight. If you hit that door again, I'll send a bullet through it. So, clear out!"

John changed his tactics and demanded that the door be opened or that he would batter it down and do a little shooting on his own hook.

He then heard another voice speaking to Muller. In a moment Jack Hayes asked, "Who are you, and what do you want?"

"Open the door, and you'll find out!" returned John, keeping to one side to avoid a possible bullet.

Cheap John heard Hayes say to Muller, "I know that voice. They're after us."

Waiting no longer, Cheap John gave the signal, and *rattley-bang!* the wagon-tongue crashed through the door and the eleven members of the committee piled into the room with cocked revolvers right on top of the doomed killers.

Had these desperadoes the weapons that Judge Bartlett had taken from them, the vigilance men would have had a contract on their hands. As it was, the arrested men could put up only a punch-and-kick fight, and even at this they made it hot for a few seconds.

Roped on the Wagon.

Without any extra words, however, Cheap John and his men soon had them roped. Except being kept under guard, Muller was not molested—it was none of his funeral.

The men were taken outside, and loaded onto the wagon. They were roped and

SNAKED THE BEGGING LITTLE MERCHANT BY THE HAIR TO THE BACK OF HIS STORE.

made to stand in the wagon-box, surrounded by the muzzles of six-shooters. The desperadoes' faces, in the flaring light between breaking day and dying moonlight, looked ghastly white. They looked the dead men they were.

While the mules were being hitched to the wagon, Hayes asked:

"Why have you followed us way out here? Didn't we leave town like you said? You've no business to come after us like this."

THEY ARRIVED, WET, MUDDY, TIRED, AND UGLY AT THE DOOR OF DAVE MULLER'S RANCH.

"Enough of that," ordered Cheap John. "Now keep still. You'll be given a chance to talk when the time comes. But I'll tell you this right now: you three men have been running things to suit yourselves and we are sick of it. We are going to clean up your kind of men if we have to hang you all.

"Instead of going about your business when released by the district attorney, you went right at your old tricks. You also made your brag that you would kill me and every man that composed my party; and you did not leave town until you heard for the second time that we were out on the street again. You had your opportunity and lost it; now you must take your medicine."

All now being ready, the vigilance men mounted their horses, and the driver was told to drive down to a big cottonwood-tree standing on the bank of the creek about half a mile below. Arriving under this tree the men tossed ropes over its limbs and drew the slipped nooses snug around the desperadoes' necks.

Then Cheap John said: "There is a man in my party who says he is acquainted with an old lady living in St. Louis. He says she is a widow with a daughter and one son. He says this son was good to his mother and sister, except when drinking. Jack Keefe, are you that son?"

"I guess I am," muttered Keefe.

John turned aside and held a whispered consultation with the man who knew Keefe's family. He then asked Keefe for details to prove his identity. Keefe gave the street number of his mother's home, her description and other matters, all of which was said to be correct.

"Keefe," said Cheap John, "how long will it take you to get to St. Louis, if I let you go? I think that if you did not get into bad company you would not be so bad a man."

"I can ride as fast as the trains can run, and I'll take the first one out of the country," said Keefe eagerly.

"You promise me," said Cheap John, "that if I release you you will at once get out of the territory and never come back?"

"Yes! I will," said Keefe.

"Men, take off the rope and let him come down here to me," ordered Cheap John, "I

will keep you under guard, Keefe, until I see you on board the train."

As the men started to take the rope from his neck, Keefe interrupted:

"Hold on there! How about my pards? Are they not goin' with me?"

"No," said John. "Those other two men will never leave that tree except as dead men. I certainly shall not turn them loose again to rob and kill. They've murdered enough innocent men.

"It would be a matter of only a short time at the best before they are hung by somebody; and it had better be right now before they have a chance to do any more murder. No, Jack, you are better off without their company. If I turned you and them loose together, you would be back in Cheyenne before night ready for trouble."

All this time, Hayes and "Shorty" were not silent. Instead of making a plea for their lives, they spent the time cursing Cheap John and what they called his "gang of cutthroats."

"Come, come," said John, "bring Keefe here, and let us get his over."

"All right!" snarled Keefe, "if you won't let my pards go with me—I don't go! So, drive on your cart—you pack of murdering bloodhounds!"

Struck dumb with amazement, the men looked at each other and at Keefe. They were astounded that a man could so recklessly throw away his life. Hayes was the first to speak:

"Call the murdering little dog's bluff, Keefe, and go, then come back and kill him and all these cutthroats to revenge "

Before Keefe could change his mind, Cheap John gave the signal, and the driver brought his big blacksnake along the hips of his swing mules. The wagon jerked from under the three reckless, unfortunate men, and their bodies were left swinging between heaven and earth.

Leaving them swinging as they were, the vigilance committee rode away.

Thus died three young men who, in one short year, had changed from good, steady-working men, obedient to the law and the right of their fellow beings, into desperate murderers.

The frontier railroad, cattle, and mining towns suffered long from such men, but when their end did come, it was almost always a case of them being "shot or hung."

Cheap John and his vigilance committee cantered back to Cheyenne, unsaddled, and quietly went about their business. The whole town applauded and thanked them, and it was some time before their services were again needed.

THE LAST STATION.

Just Before Running into the Great Terminal, the Brakeman Called the Stations of His Old Run.

THE RAILROAD MAN'S MAGAZINE is indebted to one of its readers, Mr. R. Alexander, of Oregon, for the story and poem which follow. It is an old story and a true one We had long looked for a copy and are particularly glad of this opportunity to present this bygone but extremely human incident to our readers "The Last Station" appeared in the Detroit Free Press some time in 1872. It awoke the poetic muse in Miss Susie Drury, who cleverly recorded the little story in verse which she named, "The Dying Brakeman."

THE LAST STATION.

HE had been sick at one of the hotels for three or four weeks, and the boys on the road had dropped in daily to see how he got along, and to learn if they could render him any kindness The brakeman was a good fellow, and one and all encouraged him in the hope that he would pull through. The doctor didn't regard the case as dangerous, but the other day the patient began sinking and it was seen that he could not live the night out. A dozen of his friends sat in the room when night came, but his mind wandered and he did not recognize them.

It was near one of the depots, and after the great trucks and noisy drays had ceased rolling by, the bells and the short, sharp whistles of the yard-engines sounded painfully loud. The patient had been very quiet for half an hour, when he suddenly unclosed his eyes and shouted:

"Kal-a-ma-zoo!"

One of the men brushed the hair back from the cold forehead, and the brakeman closed his eyes and was quiet for a time. Then the wind whirled around the depot and banged the blinds on the window of his room, and he lifted his hand and cried out:

"Jack-son! Passengers going north by the Saginaw Road, change cars!"

The men understood. The brakeman thought

he was coming east on the Michigan Central. The effort seemed to have greatly exhausted him, for he lay like one dead for the next five minutes, and a watcher felt for his pulse to see if life had not gone out. A tug going down the river sounded her whistle, and the dying brakeman opened his eyes and called out: "Ann Arbor!"

He had been over the road a thousand times, but he had made his last trip. Death was drawing a special train over the old track, and he was brakeman, engineer and conductor.

One of the yard-engines uttered a shrill whistle of warning, as if the glare of the headlight had shown to the engineer some stranger in peril, and the brakeman called out:

"Yp-slanty—change cars for Eel River Road!"

"He's coming in fast," said one of the men.

"And the end of his 'run' will be the end of his life!" said a second

The dampness of death began to collect on the patient's forehead, and there was that ghastly look on the face which death always brings. The slamming of a door down the hall startled him again, and he moved his head and faintly called:

"Grand Trunk Junction—passengers going east by the Grand Trunk change cars!"

He was so quiet after that that all the men gathered around the bed, believing that he was dead. His eyes closed, and the brakeman lifted his hand, moved his head and whispered: "De—"

Not "Detroit," but Death!

He died with the half-uttered whisper on his lips. And the headlight on death's engine shone full in his face and covered it with such pallor as naught but death can bring.

THE DYING BRAKEMAN.

BY SUSIE DRURY

[Suggested by an incident related in *The Detroit Free Press.*]

Silent they sit in the shadowy room—
  The lamp burns low—
And they wait th' alarm of the signal-bell,
  For one has a journey to go,
He that sleeps with a dream on his lip,
And the throbbing breast just heaving so.

Hush! he starts, for the engine screams
  With human cry,
He wakes with a start, and 'Kalamazoo!"
  His white, white lips reply.

Soft steals the hour, and the wind sweeps by,
With hymn and lullaby, moan and sigh,
Wail and laughter, and frolicsome glee.
Hark! it stirs the thin drapery
Of the casement curtains about his bed.
Once more he wakes, "Jackson," he said;
"Change cars for Saginaw ahead."

They wipe his brow with womanly care;
  "Poor fellow! the trip's nigh o'er at last."
"Just feel his pulse, good fellow, there!"
  "I thought he now had surely passed."
"That is the tug-boat's whistle, friend."
  "What is't he said?" "Ann Arbor?" "Ah!
When will the journey end?"

Again the old yard-engine yells,
  Some peril at hand.
"Way, way, sleep on, no red lights gleam!"
  "He seems to understand."
"So on he comes, faster each time,
  On this death-train."
"Ypsilanti—for Eel River Road
  Change cars again!"

Softly—slowly passing—
  The end is very nigh.
The luster of the spirit world
  Beams on that closing eye.
"He's going—close that creaking door,
  It moves him just the least!"
"Grand Trunk Junction—passengers
  Change cars for going east!"

"Hush!" 'tis over. "Way."
  "What?" "Speak to me!"
"You're reaching the *white station* now."
  He whispers—"De—"
No, not Detroit, brakeman, to thee
  The angel whispered *Death*, not *De*—

Chicago Inter Ocean.

MISSES THE LOCOMOTIVE.

"WHENEVER I get out of a train at the Grand Central or the new Pennsylvania station, I can't help missing the old locomotive," said a traveller. "Ever since I was a child one of the pleasures of a railroad journey was to look over the locomotive which had been pulling my train, but somehow, I don't get this pleasure out of the electric motor.

"The trouble with the motor seems to be that it's too businesslike, it is plain and prosaic beside the old locomotive. Why, you can't even see the driving-wheels, and might as well be looking at a huge soap-box for all the interesting parts you can see.

"From habit, I suppose, I always look to see what's been pulling me when I finish a railroad ride, but when I see one of these motors at the Pennsylvania station I sigh for the old locomotive it has displaced. The motor doesn't make a sound after it gets in, just as though it had been no exertion at all to pull you under the river, but how different the locomotive! You always find it panting away like some living being, getting its breath, as it were. Then there's the engineer leaning out of his cab window watching the travellers leave his train, the vitalizer of the whole thing. You don't feel so drawn to the motorman somehow."—*New York Sun.*

WITH A SMALL "D."

BY ROBERT FULKERSON HOFFMAN.

It Is Easy To Have Your Opinion, but Real Knowledge Is Both Dear and Difficult.

"'ON the whole, there appears a decided advance in the applied science of both automatic and manually controlled signaling, but there still remains a preponderant element of the personal equation in American railroading; a lamentable lack of discipline among the men—trainmen in particular—which the board feels impelled to deplore. Discipline, discipline, and again discipline, should be the watchword until the last element of individual negligence shall be eliminated beyond the possibility of embodying a daily menace to the traveling public. There is, of course, the verisimilitude of safety, even while—'"

"Damon, verisi-five-pairs-and-a-trailing-truck is good, not to say rich and exuberant," interrupted the deeply contented voice of Moffat, the freight-rate clerk, "but, what kind of gas, exactly, are you inhaling? Come out of your corner, expand, elucidate!"

Damon did not at once appear. Instead, his voice welled up again dispassionately over a roll-top behind which he sat in leisurely seclusion:

"That," said he, "is the double-distilled quintessence of gab, as she is sometimes written into the short and simple annals of the poor railroad man—'trainmen in particular.' There's a lot more of it, in the mild and pensive style of the closet philosopher who framed up the last report of the World to World Committee's Board for the Flaying of Railroad Men Who Are Too Dead to Talk Back.

"Main idea," continued Damon, tossing the pamphlet aside and limping around the end of his desk to a seat beside Moffat at the window, "seems to be wiping out the 'personal equation,' eh? And scorching a big 'D' for 'discipline' in the railroad hide, same as folks out in the big country brand a wild-eyed steer—so deep and galling that it can't be lost to sight."

Then Damon sat down and "expanded" while he finished the noon hour with his friend from the floor below. It was a silent sort of expansion for a time, while his keen blue eyes looked out unseeingly from under his thatch of white hair and whiter, shaggy brows. The dry, powdery snow swirled in little eddies upon the sill of the lofty window in the Railway Exchange Building, and the screeching northwest wind whipped trailing banners of white from the stone coping of the Illinois Central depression far below.

The troubled waters of the turbulent and deserted lake were dimly veiled in shifting, driving wraiths of summer sails, while Damon's calm blue eyes asked nothing of them,

but seemed searching back upon the long trail to where his fellows of old were still battling actively with the mountains of the high Southwest.

A specially heavy roll of waters swelled and leaped under the lash of the wind in the inner harbor, raced outward to its swift and sonorous collision with the ice-capped breakwater, and, spouting its whitened spume a hundred feet in air, broke tumbling into the wilder waters of the open lake.

The distant impact cleared the veil from Damon's eyes and brought him back to the sheltered comfort of his desk and its surroundings, where for many, many months he had been the able and final arbiter in matters of record and discipline which gained sufficient weight upon the line to bring them of their own inertia to the general offices for adjustment.

From this it will appear that Damon, if he would speak, had in his favor the presumption of a true knowledge of the personal element in railroading. He spoke:

"One winter day—'noctidial day,' I presume our friend of the pamphlet would say, because there was really a day and a night involved—one winter day there was a sort of three-cornered affair finished up out in the mountains, in a way that ought to satisfy the most fastidious dresser-up of other people's behavior that the personal equation, as they call it, is on the railroad job with both feet, and there to stay, just as it is everywhere else, only more so.

"Ought to satisfy 'em—if they saw the whole play—that personal equation is a kind of free horse in railroading, nearly ridden to death, but not needing the big 'D' burned into it with a marking-brush dipped in vitriol to make the horse stay on the job.

"It's the surest big thing that the dear, unsuspecting public has to hitch fast to. Charge the whole statistical load to the railroad man, which would be far from fair, and he kills one passenger out of twenty-four hundred thousand carried in the course of a year, while he gives up one out of every four hundred and twenty-two of himself dead, in following out his ideas of a discipline more self-exacting than he would allow anybody else to apply to him.

"The semaphore, until it needs fixing, automatically keeps one eye on the job. He keeps one eye on the semaphore, and the other eye—and both ears—on the rest of the job. Every big play that comes up grows out of a hundred others, and when it's done it stands out just as plain and simple as the little snag that barefoot Johnnie stubs his toe upon. But, *after* it's done. Not *before!*

"That's the way with this thing that come up out on the mountain. The motive-power folks ordered some new locomotives to cover the runs of California Express, No. 2, east; No. 1, west, over the mountain division. When the first new engine went into the harness she showed on her first trip that somebody had made a slight miscue; something wrong with her breathing apparatus.

"She got over the mountain without a helper, as they intended, but she hadn't showed up enough reserve power to make it a safe daily performance. She just dragged No. 1 over the pass on bare schedule and nothing to spare.

"Headquarters sent a pair of mechanical experts out to test her with some little instrument 'dinguses,' and maybe change her valves according to what's found.

"Nadir, the eastern end of the division, doing its big and honest best down on the banks of the Crooked Claw, had a master mechanic who had got there by a long and hard road of personal experience. His pride of this attainment got to the surface of him in an overlarge diamond shirt-stud and a tendency to rest his feet in the middle of his desk while giving audience to anybody or anything less than what he called a 'brass collar,' when the 'brass collars' were known to be at a safe distance.

"Further, he never whispered when telling what he could do to an engine—and he didn't like experts. He had ideas of his own as to what No. 1's engine needed before he had finished looking over the despatcher's shoulder while her first run was being penciled in. He remembered a Mason engine that, 'way back in 18— Do you see, Moffat?

"Zenith, western end of the division, over on the other side of the mountain, had a master mechanic who had come by the same hard road of experience, but was not so anxious to prove it by oratory and by the outward, glittering insignia of office as he was to quietly make good with results. But—he didn't like experts.

"He had ideas of his own touching the needs of No. 1's engine before she had bombarded her way out of his hearing on

her first trip toward the Nadir end. He remembered a Blood engine, 'way back in—Well, he wanted to get at the new engine before the Nadir man got a crack at her, and he couldn't rest easy for fear the other fellow would get her first.

"The engineer on No. 1 freely offered to bet his buckskin gauntlets that he could set them valves himself and make her climb a semaphore mast. He begged for a chance to do it. He ran a Grant engine, once, that—

"Well, of course, the experts had some instructions and some ideas of their own, first of which was to try her out carefully for a full round trip as she was delivered, then make required changes. They, too, remembered some engines, but their only sure play was to hold all of the others off, both ends and the middle, and make good on their own account when it came time to answer to headquarters.

"Seems all right and natural, so far, don't it, Moffat?"

"Sure," said Moffat. "Little lack of discipline, maybe, but —"

"Maybe," admitted Damon, "but, you'll notice later, that what discipline 'loses in the shuffle' it generally 'makes up in the deal.'

"The new engine made her first trip on a Saturday with the experts aboard, pulling No. 2 from Zenith, over the pass and down to Nadir. The master mechanics listened at both ends of the wire, and the experts worked their instruments out on the cylinder while the engineer drove her through and listened to the exhaust.

"Now, Moffat, there are as many reasons why a set of locomotive valves should be set this way or that as there are reasons why you should charge one dollar for hauling a ton of freight to Jericho and charge only seventy-five cents for hauling it to Joppa, we'll say, which is a whole lot farther away and—"

"Oh, I can easily make that clear to you," bristled Moffat, promptly assuming an upright position in his chair. "The—"

"Yes, I know," interrupted Damon "Same as I might give you some of their blind-lead and cut-off jargón. But—let's don't!

"It'll do to say that the engine was a little lame on that run, and the engineer urged the need of shortening up an eccentric blade when they got to Nadir toward evening. He smiled in a queer sort of way when he urged it; but he was a good fellow, and the experts consented to have that routine change made to please him.

"The engine was laid up over night and held on order to haul No. 1 back over the same route the following day. Late in the night of the lay-over, one of the experts took the precaution of looking into the roundhouse where the engine stood.

"Lights were flaring and smoking, the ground floor was littered with valve-motion parts, and the underworks of the engine looked as if she had just dragged her way clear of a modest kind of wreck.

"The master mechanic at Nadir had got to her first! His men were fixing her 'like that Mason engine.' It was to have been a grand coup on the experts, the man at Zenith, and on everybody outside of Nadir.

"That, you see, is what it *was* to be after the experts had made another run without knowing of the changed valve-gear, and found her to be the best thing on the pike, and said so. Why, of course, they'd have to say so!

"The expert looked, smiled, sighed, and stole sadly away to bed. The thing was too far done to admit of stopping it then, and there was no other engine available for No. 1.

"When he appeared at the roundhouse next day, the comparative stillness of Sunday hung over the place. The new engine stood purring quite circumspectly upon her pit. There was nothing in sight to proclaim the activities feverishly past with the night.

"Everything had been done, except the one thing imperatively needful; done in a hurry of hurries, it is true, and with the result more than doubtful. But, the one thing that should have been done without failure, the emptying of the boiled-down alkali water from her accumulation of the previous day, and the filling of her boiler with clean water, had been entirely lost sight of in the rushing valve-work.

"The expert mounted his instruments in the wind-shelter built up on the right-hand cylinder, and stationed his companion in the cab with the engineer.

"It was early winter, that Sunday morning, and the sun was smiling in a kind of ironical way—something like the smile that flitted around the mouth of the engineer as he puttered about—and 'way off toward the mountain head, half-way to Zenith, there was a threatening canopy that panned

out some hearty winter lightning later in the day.

"They went over to the station and hooked on to No. 1 all in good time, and left Nadir on the dot. It was a scandalous run, right from the start. That historic Mason engine must have been of another breed than No. 1's engine. She was evidently in distress in more ways than one. She was lame—oh, *lame!*—and the foaming alkali water in her began priming at the first hard pull.

"She lost on the up-grades, and ran hard for it down hill, choking something near to whitewash out of her cylinders and streaking it down her stack, while the expert took some worthless indications from the instrument. The engineer, his smile burned out in the red flush of anxiety, fought her up to a losing battle with the hard schedule.

"The experts gave it up at the first water-stop, and went back into the train in disgust. That passed them out of what came later.

"There was enough of assisting grade to get them to the foot of the twenty-five-mile climb through the pass on time. They started up the pass without a helper. They got to the half-way station, the last point where they could have run in for No. 2, a little shy, but a lot mad and hoping some.

"No. 2 east-bound and of the same class, had the right of track, and would wait at the mountain top only what the schedule called for on their regular meet there, unless the block was red against her.

"Ordinarily, she'd come squirming down out of the turnings of the pass, taking all the advantage she dared on the one-hundred-and-fifty-foot grades, but sure to shoot across the occasional flats in rocket style.

"There was just a greasy little film of feather-snow that had come down with the lightning display of the late afternoon. Under that was a week's gathering of crusted snow between the rails. It had smoothed and thawed under the sun and the passing ash-pans by day, and had frozen by night until it would bear a man's weight in some places; in others, it wouldn't.

"The feather-snow laid the engine's last straw upon her by starting her on a steady, sneaking slip that never got big enough to be plainly heard in the exhaust. About a mile from the meeting-point at the top of the mountain, with the steepest grade and three sharp folds of the curving track yet to be climbed, they were so close on No. 2's time that they knew they had to flag ahead for it.

"The engine had been dragged down to a plodding gait of not more than eight miles an hour. She still had a chance, but it was the one chance of keeping her steadily going on sand. The flagman ran out over the foot-board and jumped from the pilot-deck to the ditch.

"He scrambled up out of the snow and forced his way ahead to a point where he could safely get to the middle of the track and run upon the snow-crust.

"The quick darkness of the pass was coming down. It was just in those few minutes when it is neither night nor day there, so he carried both flag and red lamp.

"That flagman knew just what kind of a job he had drawn. He had sufficient imagination to picture No. 2 making her last pull, dead sure and easy, up the other side of the crest, with her helper-engine coupled on ahead.

"The thought of her load of people sitting there all unaware; the panting engine pursuing him from the rear with its load of other people, likewise trustful and unaware, urged him to a speed that burned his lungs with the keen mountain air and sent his blood pounding to his ears in great throbs until they ached almost to bursting.

"The treacherous snow-crust broke again and again, first under one foot and then the other. He rose from his falls, glanced at his red lamp, and ran doggedly on.

"He ran out upon the rounded, slippery ties of High Bridge in the last curve which hid him from the engine following and from the crest above.

"Too eager, exhausted, what you will, he blundered and fell between the ties on High Bridge. He had a confused moment of dancing red lights while he clutched at the icy ties. Then he fell through and deep among the cross-timbers, with the plodding exhaust from No. 1's engine creeping closer above him and the sharp bark of the helper cutting loose from No. 2 rolling down from the mountain around the point of rocks.

"Then a stinging shock of pain ran through him, and the darkness shut down upon him completely. His red lamp and his flag were buried in the snow deep down below where he hung among the timbers. No. 1's engine rolled slowly past, above him. No. 2 hung poised for her flight from above. Between them stood the spur of rocks. The way for both seemed clear.

"The block-signal? Moffat, you're all right—for a freight-rate man.

"Yes, it was single track, and there was a block that stood to hold No. 2 and anything else east-bound if the red gauze disk showed in the bull's-eye.

"It was a short block of two thousand feet from the lower end of the passing tracks. It was there to guard that last hard and crooked climb against exactly the kind of thing which was about to happen. To make it doubly sure, No. 1 sent its flagman ahead into the block, and came dragging in after him, close on No. 2's time. He fell out of the game, as I've shown you.

"Jim Bayard and Sunny Acre, on the engine of No. 2, looked ahead down the grade after the helper engine was in to clear. Both of them sized up the semaphore carefully while they pumped up the air and made the brake test.

"'She's white, Jim!' announced Sunny, the fireman.

"'White!' responded Bayard, with a final look at the disk.

"He released the brakes, and No. 2 crept forward promptly with the slow, resistless movement of a starting avalanche. He tightened the brakes for the usual drag-test; then, instead of letting her out for a freer start, he tightened them down to a full, grinding stop, and blew the conductor's call, quick and low, from the whistle.

"Packer came running from the train, watch in hand.

"'Matter, Jim?' he shouted as he ran. 'Why don't you go?'

"'Pull down that big pinch bar from the back of the tender, Sunny! Quick!' said Bayard to the fireman.

"To the conductor, or to both, he said:

"'I don't like the look of things up here! I don't like the *feel* of it!'

"'What are you talking about, Bayard? We've got no time here for riddles! What do you *see?* She's white! Why don't you go?'

"'I thought I heard something coming against us when we first stopped,' said Bayard, as he took the pinch-bar from Sunny's hand.

"'Do you hear it now?' demanded Packer fiercely. 'Why don't it show up? Look at the "board"! It's white, ain't it?'

"'And, what's more,' continued Bayard, as he climbed down, ignoring Packer's volley of anxious questions, 'I thought I caught a flash of red 'way down yonder, just as we tipped over the crest. But it don't come!' he admitted, while hurrying ahead down the grade to the semaphore.

"When he had passed it by a few yards he stooped and laid the steel pinch-bar across from rail to rail.

"'Now, what color is she?' he demanded of Packer, who had not yet passed below the semaphore light.

"'*White!*' shouted Packer. '*White!* She's dead as a glass eye! Flag down, Sunny; flag down, and meet their flag! They can't hurt us; but flag 'em in from the point, and find out what's wrong, while you're riding up with them. Ask them if they were flagging against us! Tell 'em their flag didn't get through!'

"No. 1 pushed her weaving nose around the point of rocks before Sunny had run twenty steps. Packer threw the switch and let her drag into the passing track, while Bayard dug and burrowed in the snow near the semaphore-mast.

"'Signal wires hit by lightning!' said Bayard when he rose from his knees and looked stealthily into Packer's questioning eyes. 'Magnets fused and welded solid while she stood to show clear board! We are first over the road since the lightning cut loose up here this afternoon.'

"Then they ran the helper engine down to High Bridge and searched me out from among the bridge timbers," said Damon.

"*You!*" demanded Moffat. "Out from among the—"

"Yes," replied Damon, gently rubbing his bent but very able thigh. "I may have shown a 'lamentable lack of discipline' by falling through High Bridge just at the wrong time, but I was the flagman on No. 1 that day, and I'm giving you this just as it pieced together after everybody had rubbed noses for a week or so afterward.

"If I was writing pamphlets for the World to World's Board, I'd probably say that, because of my 'individual negligence,' I got the prettiest case of double, compound fracture of the thigh that a railroad surgeon ever tackled.

"But, being's it's just among ourselves, we'll say that I finished that trip with a broken leg in the tourist sleeper of No. 1, and let it go at that."

"Huh!" Moffat emitted quite noncommittally. "I suppose that Nadir roundhouse bunch and your valve-setting engineer didn't get much done to them after the experts got in their report!"

"They didn't," replied Damon. "Not a thing done to them. The experts didn't make any report on that part of it. They fixed the engine right and went home.

"The only report that ever went in covered an engine failure, account of bad water; and a semaphore gone wrong, account of hit by lightning.

"Moffat, every one of those fellows played up to the best that he had in him. Taking the big human average, every one of us did. And that's what you've got to bank on, first, last, and all the time.

"Discipline, if it's to get results worth while, is an elastic code big-souled enough to hold men up to concert pitch without stringing them so high that they break every whipstitch and lose all pride in their work.

"It's got to do some hard things, and do them swift and sure; but it's got to stretch enough to take in the 'personal equation' of a high average grade of humanity. Understand that the hardest discipline that any railroad man worthy of the job receives and maintains is the discipline which he applies to his own hard-tried body and soul.

"And," concluded Damon, as he limped slowly back to his desk, "there is always a handsome balance standing to the credit of the 'personal equation' in this business—if you know where to look for it. As I previously rose to announce to this private audience of one, discipline, with small 'd,' in the hands of the non-elect manages to make good in the final deal, whatever it may lose in the preliminary shuffle."

Then Damon subsided into a mere rustling of papers while he approved the setting of ten credit-marks in the record of Tom Gray, engineer, for firing his engine from Okalee to Sanchez, while his fireman had writhed with cramps.

He looked thoughtfully for a moment at the door which had just closed benind Moffat, departing for the floor below. Then he prepared a recommendation, and sent it to the distant master mechanic, suggesting that the addition of five credit-marks to the fireman's record would be approved if sent in as a recognition of his staying out the trip on the seat-box, rather than beating a retreat to the coaches.

IN THE MOTHER TONGUE.

MRS. MURPHY had been in charge of the railroad boarding-house but a few days when she discovered that railroad-men were a mighty peculiar set of mortals. What she thought is best told in her own words to Mrs. O'Brien:

"Be me sowl, Mrs. O'Brien," says she, "the ould Nick is in ivery mother's son o' me boorders. There's not wan o' thim but is daffy, an' Oi'm thinkin' the shakin' up they get from ridin' the cars musht addle the brains o' thim an' twisht their sinses out o' shape.

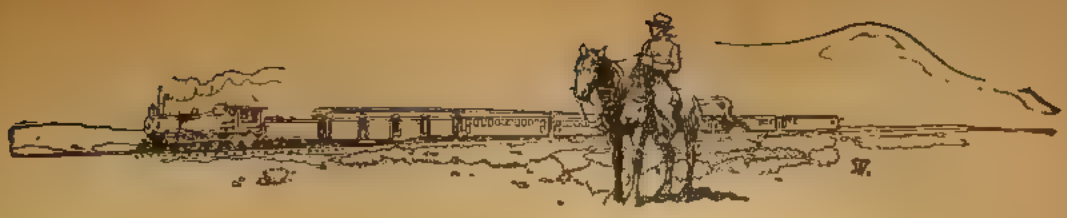
"Only the other day, the very firsht male Oi sarved thim, whin the min came in to dinner, an' a foine lot o' min they wer, Mrs. O'Brien—sez Dinny Shay, the yard-mashter, sez he: 'Mrs. O'Brien, plase bring me the ile-can; me cup's dhry.' Oi shtared at him a bit, wonderin' phat he cud want wid the ile, but Oi goes an' gets the ile-can an' brings to him, an' shure the whole gang o' thim gives me the ha-ha, for it was the tay-pot he wanted me to bring.

"Then the engineer o' the switch-engine, a rale dacent-lookin' man, sez he to me, 'Mary Ann,' sez he; 'plase pass the sand-box this way,' and it wer the sugar-bowl he wanted; whilsht Ted Larrigan, the fireman, sings out to Marie: 'Switch me onto the tank-track!' meanin' that he wanted a glass o' wather. They call the butther-dish the grease-pot, knives are slash-bars, an' the forks are hooks, an' the divil only knows phat the rest o' the male is in their daffy langwige

"An' not contint wid belyin' me good vittuls wid their haythenish names, be hivins they's numbered me two dawters, Mary Ann an' Maggie, jest as though they wer engines or thrains. The other mornin' Oi luked into the dinin'-room a minit, an' sez wan o' the boorders, sez he: 'Mrs. Murphy, sind in No. 33 wid another load o' flats,' meanin' wud Oi sind in Mary Ann wid another plate o' hot cakes. Then somewan else asked to have No. 44 to 'kick the ile-car onto his sidin',' which meant fer me to sind Maggie in wid the tay-pot.

"Be me sowl, Mrs. O'Brien, Oi'm losin' me sinses complately wid the loikes o' this new lang wige. Oi moight as well be in Chiny or Turkey, for Oi can't undershtand thim at all, at all. This very marnin', Oi wer helpin' Mike Daly to some more praties he'd asked me for when he begins to shout: 'Toot-toot! toot-toot!' an' purty soon he hollers at me rale mad: 'Phat ails ye? Can't ye moind the signals whin Oi gives ye off brakes?' Shure, he wer tellin' me to shtop an' Oi didn't know it, losin' two or t'ree good shpoonfuls o' praties be me ignorance.

"Oi'm tellin' me man Pat that if he doesn't buy me wan o' thim dickshunary-books that'll larn me the lingo, Oi'll be in the daffy-house befoor the month is out. Oi'm a dacint, good-natoored woman, Mrs. O'Brien, but be the saints, the quare talk o' this gang o' railroad loonyticks is unsatin' me reason, so it is, an' Oi'm on the varge o' delerious tremers!"



The Live-Stock Limited.

BY CHARLES FREDERICK CARTER.

THERE is no form of freight that necessitates more attention from trainmen or suffers a greater loss of value in transit than cattle *en route* to the slaughter-house. Fruit, vegetables, and all other perishable farm products can be carried in refrigerator-cars without loss or damage, but no way has yet been discovered by which beeves, sheep, and hogs may be kept from losing a certain amount of weight for every hour spent on the rails.

Ever since cattle-buyers ceased driving their herds to market and began shipping them by rail, speed has been the greatest factor in the economical transportation of live stock, and it is for that reason that cattle-trains have made some fast-freight records that are hard to beat. The joy of hustling cattle over the right-of-way and the lessons that some trainmen have been forced to learn regarding the loading of live stock, form one of the most interesting chapters in the railroad world.

Running Fast Trains for Fighting, Fretting, Four-Legged Passengers Often Requires a Large Fund of Patience, and an Ability to Think and Act Quickly.

AMERICA'S foremost citizen might start on a journey from Anywhere to Somewhere, and the railroads could send him all round Robin Hood's barn by their slowest trains; they could side-track and delay him; they could refuse to put dining or sleeping cars on his train, or to stop at dining stations; they could cause him to spend a whole week traveling five hundred miles, and the United States government could not say a word.

Likewise, the railroads could play tag with a consignment of firecrackers for the Fourth-of-July trade from May till August, or with a consignment of Christmas goods from December until the first of March, and still the government would be indifferent.

Let a shoat or a steer start on its travels, however, and instantly the whole machinery of this mighty government is on the alert to see that it goes by the most direct route in the quickest possible time to its destination. Nothing is too good for prospective sausage or porterhouse. One little runt of a brindle steer looms larger in the eye of the government than a whole car-load of prominent citizens with the vote of a State in their vest-pockets.

There's no joke about it, either. It cost the Texas and Pacific a pot of money to find out that the statute providing that live

stock must be shipped by the most direct route is good law. At least, the United States Supreme Court said it was when, on May 17, 1909, it affirmed the right of Eastman & Knox to collect $3,600 damages from the road for violating this provision.

The Twenty-Eight-Hour Law.

Also, a whole lot of railroads part with a slice of their revenues every once in a while for violating the statute which requires that stock must not be kept in cars longer than twenty-eight hours without unloading for food, water, and rest. For example, Judge Landis fined six railroads $13,500 at Chicago, May 4, 1908, for violation of this law. In October of the same year four roads were fined $10,350 at Leavenworth for the same offense; and on May 20, 1909, four roads were fined $9,700 at St. Louis on the charge of violating the twenty-eight-hour law.

Such strenuous manifestations of solicitude on the part of the government in behalf of four-footed travelers would be quite enough to make everybody on the railroad step lively whenever a shipment of live stock looms above the horizon, but there are also additional incentives.

Cattle and hogs lose rapidly in weight, or "shrink," in the vernacular of the trade, during the process of shipment. In addition to shrinkage every hour of close confinement in a car increases the danger that fat hogs will suffocate, or that peevish steers will get the weaker ones down and trample or gore them to death.

For these reasons the shipper is desperately anxious to get his consignment on the buyer's scales in the shortest possible time. Any railroad that does not stand ready to burn holes in the atmosphere with its stock-trains, therefore, can confidently count on seeing its loathsome competitors gather in all the profitable live-stock traffic.

For all these reasons the word stock has the same effect on a railroad man as the exclamation rats has on a terrier. At sound of that magic syllable he pricks up his ears, stiffens his sinews, and takes a reef in his belt. Instantly he is prepared to break the speed record or perish in the attempt; particularly if the run is to be made at a session of the smoke committee instead of out on the road. In these days, when through freights make the run between New York and Chicago in sixty hours as a regular thing, you have to fan 'em some to make a stock run worth talking about.

This is why the genuine, blown-in-the-bottle wonder stories of fast runs with stock-trains date 'way back. The average time with a stock-train between Chicago and Pittsburgh nowadays is twenty-five to twenty-nine hours, which is about as fast as anybody cares to turn the wheels of a stock-car, but it is done so often that nobody would dare brag about it.

One of the the runs they are still talking about was made by the Lake Shore and New York Central in 1882 to get one hundred and fifty-eight fancy Western corn-fed steers to New York for export. The steers, which belonged to T. C. Eastman, left Chicago at noon, Friday, May 27, 1882, in special cars with flexible partitions, which gave each steer a compartment to himself in which to partake of a cold collation, or lie down at pleasure. This was to avoid the necessity of unloading under the twenty-eight-hour limit.

The Lake Shore doddered along with these steers, even going so far as to head them in on the passing track to get out of the way of the limited, with the result that it was well along in the forenoon of Sunday when they reached Buffalo. The steers were fearfully bored, while Eastman is said to have had a fit every two hours. What he said to the New York Central folks is not recorded, but it must have been plenty, for things began to happen.

They Made Time.

An engine backed down onto those stock-cars in the Buffalo yards while a switch-engine was putting a caboose on behind. The conductor wiggled his dexter hand at the engineer even before the pin clinked into place, whereupon the eagle-eye pulled her tail so hard she nearly coughed up the grate-bars.

To get to the point, those steers never traveled less than thirty-five miles an hour, and from that up to forty-five, which for the stock-cars of thirty years ago wasn't half bad. At eleven-forty o'clock Sunday night the train came to a halt in the Sixtieth Street yards in New York, just fifty-eight hours and forty minutes after leaving Chicago, allowing an hour for difference in time. This established a world's record for the distance for a stock-train.

Eastman's first care Monday morning was to get those precious steers onto some scales. They weighed 222,870 pounds, which was 3,228 pounds less than when they left Chicago. As this was an average shrinkage of only twenty pounds a head, as compared with an average of seventy to a hundred pounds per head on the ordinary Chicago-New York shipment, he felt he had good reason to be pleased.

Fast stock runs were sadly overdone in the old days on the Granger lines. Whenever a few cars of cattle or hogs were corraled the lucky line that captured the prize would proceed to pull things to pieces to get those cars over the road, regardless of other traffic or the condition of the road or anything else. Often stock extras were run with half the tonnage the engines were capable of hauling.

Things reached such a pass that in April, 1889, J. M. Whitman, general manager of the Chicago and Northwestern, sent a long letter to all the other Chicago-Missouri River lines, protesting against the stock-train speed mania. He advocated a safe and sane policy in handling live-stock traffic that would enable the roads to pick up an honest dollar now and then. This letter had a sobering effect, and things began to mend in the stock traffic.

Not Sufficient Cars.

Now, the principal trouble of the management is found in the fact that there is but one day in the stock-shipper's week. Every shipper wants to land his shipment on the market bright and early Monday morning.

As there are but seventy thousand stock-cars in the United States, according to the latest available figures of the Interstate Commerce Commission, it takes some headwork to make them go round.

Just to show how the live-stock traffic is bunched, it may be said that on Saturday, February 9, 1907, the Chicago and Northwestern received orders for twelve hundred stock-cars to be loaded at various points on its lines for delivery on the markets the following Monday. The cars were all delivered on time, and one thousand and fifty of them were loaded and shipped.

On the following Saturday eight hundred and fifty stock-cars were ordered, and eight hundred were loaded and shipped. In the brief space of ten hours one August day in 1902 the Santa Fe hauled five hundred cars of live stock over a single division into the Kansas City market.

Getting Them into the Cars.

If the officials have their troubles in handling live-stock traffic, so also have the trainmen. It is easy enough to throw a string of empties in on the stock-yard track, but it isn't so pleasant to sit around for hours, particularly in hot and cold weather, waiting for a lot of fellows who don't know how to load the cars, particularly while you realize that dinner will be spoiled beyond redemption before you can get home.

Loading cattle and hogs is not easy, particularly when you don't know how; and most village stock-buyers do not know. They open the proceedings by thrashing wildly about and yelling like a tribe of Comanches doing a war-dance until the whole drove is on the verge of nervous prostration. In that condition two steers run out of the car for every one that goes in.

Many a brakeman has watched such a performance until tears of anguish coursed down his cheeks and he harbored dark thoughts of committing murder, or mayhem at the very least, upon the blatant mob that is creating such a hullabaloo.

If he is wise, however, he will put away the longing to shed the blood of his fellow man, and especially will he stifle any indiscreet desire to jump in and show 'em how it is done.

Marty Williams, my partner, once disregarded this wise precept. After the village stock-buyer and his cohorts had delayed the train a mortal hour to demonstrate their profound ignorance of the art of loading hogs, they had only succeeded in getting half a shoat into the car. The front half stuck out into the chute, where it maintained a vigilant guard to prevent any others from entering. Marty could stand it no longer.

Marty Shows Them How.

Uttering cutting remarks about "showing them yaps how to load hogs," he climbed the fence; and charging bravely up the chute at the shoat which was giving such an excellent imitation of Horatio at the bridge, he waved his arms and shouted aloud, "Sibbooey!"

This was more than any self-respecting hog could be expected to brook, but Marty didn't know as much about hogs then as he did a little later. The old fellow's muscles stiffened visibly as his insulter rushed up the chute. His bristles stood erect, and his eyes snapped fire as he peered from under his ears, while he slowly brought his nose up to "charge bayonets."

When Marty was within four feet of him that three-hundred-pound shoat leaped forward as if he had been shot from a gun. His nose went between Marty's legs, while his broad shoulders tripped the impertinent brakeman up and brought him stomach down, face to the rear, upon the porker's broad back.

With legs and arms sprawled out and thrashing the air impotently, Marty rode gaily down the chute, and through the squealing drove in the pen. Never have I seen such a look of profound astonishment on mortal face as Marty wore for a few fleeting seconds.

It did not last long, for that shoat, making straight for a pool of semi-liquid mud in one corner, wheeled suddenly upon its brink and dumped his rider neatly in the middle of it. Marty had to be washed down with a garden-hose. By the time this was done some farmers who happened along had loaded the hogs.

Where the Shipper Suffers.

Even after they are in the car, both cattle and hogs still retain a remarkable capacity for making trouble. For this reason there are always attendants with every shipment to keep the damage down as much as possible.

Fat hogs are liable to get smothered or to die of heat in summer. At water-tanks, a brakeman holds the valve open, walking along the train as it moves under him, to give the hogs a shower-bath.

Cattle are the worst. Once a steer gets down, his chances are small, for the rest will trample and gore him to death unless the attendants can get him up promptly.

The stockmen in charge of a shipment of eighteen cars of Mexican steers bound for Denver on the Santa Fe in June, 1901, managed to get left behind at La Junta. Some of the cattle got down, which started a fight in one car.

The noise and the smell of blood started all the others to fighting, and for the next half-hour eighteen car-loads of battling steers went bowling across the prairies. The trainmen could do nothing, so the riot went on until the combatants were exhausted. When it was all over twelve cattle had been killed, and twenty others were so badly hurt that they died soon after.

Some obstreperous steers on a Union Pacific train bound for Omaha gave Brakeman Frank Monahan a chance to prove that he possessed both courage and presence of mind. The steers managed to knock a door off, and three or four promptly jumped out while the train was running. Monahan, who was on top, where all good trainmen were supposed to be in the days of the Armstrong brake, saw the door go and the steers jump.

Realizing that a car-load of good beef would be spilled upon the prairie unless something was done very quickly, he sprinted back to the stock-car, climbed down the ladder, and sidled along the slats to the open door, where he stood hanging on with one hand, threatening the steers with his cap in the other hand and yelling. He kept this up until the train came to stop at the next station and help came. He saved the beef.

If it were not for the railroads, people in cities could not have porterhouse steak for dinner every time they wanted it. Prior to 1850 all cattle were driven to market. In 1847 three men drove one hundred and nineteen head of beef cattle from Lexington, Kentucky, to New York, a distance of eight hundred miles, in ten weeks

Not infrequently cattle were driven all the way from Iowa to New York City, and sheep were driven from Oregon to Nebraska. Every year cattle by the hundred thousand were driven from Texas to the grazing-grounds in Montana and Dakota.

First Shipment to New York.

In 1852 one of the first important shipments of live stock to the New York market was made. It consisted of a hundred head of cattle, which were driven from Lexington, Kentucky, to Cincinnati, where they were loaded in cars and shipped to Cleveland. There they were put on a steamboat, which took them to Buffalo, where they were again transferred to cars for the journey to Albany, New York.

At the latter place the final transfer to a steamboat was made, on which they went

down the Hudson to New York. The cost was fourteen dollars for the entire distance.

As soon as rail routes from Texas to the northern grazing-grounds were available, the great overland drives came to an end. Live-stock traffic played an important part in keeping the Santa Fe afloat in the early days. At this period, the company could not afford the luxury of a fence, and the consequence was that the cost of damages for live stock killed by trains rose from $16,545 in 1878 to $44,143 in 1881.

Freight Rates on Cattle.

Now, the average cost of hauling cattle from Texas to Montana ranges from $3.19 to $4.70 per head, as compared with an average cost of $2 per head for the overland drive; but there were heavy losses in the drives, and the cattle reached the North late and in poor condition. Now that they travel in luxury, the cattle reach the range early and thus have months more in which to put on weight.

The loss is negligible. The cost includes the drive to the station in Texas, freight at $100 to $137 a car, feed on the way at $2 per car at each unloading-point, and caretakers at $2 a car and the cost of driving from the station to the ranges.

From the northern ranges to Chicago the cost runs from $4.72 to $8.49 per head, the freight rate being from thirty-five to sixty-six cents a hundred pounds, and the switching charges $2 a car. From Chicago to New York the rate is twenty-eight cents a hundred pounds, while from New York to London the ocean charges range from $6.60 to $7.20 a head, to which must be added hay for fourteen days at $2.50 to $4.50 a head and attendance at fifty to sixty cents each. To ship a two-hundred-pound hog from Missouri to Chicago costs from seventy cents to $1.50.

The standard stock-car has an average capacity of twenty-nine tons. In shipping to the range thirty-five head of cattle can be put into a car, but after fattening twenty-five head make a load.

The average beef weighs about nine hundred and fifty-five pounds; but a choice export steer weighs around twelve hundred and fifty pounds, and will yield about seven hundred pounds of dressed beef. Hogs average seventy-five to the car, while a double-decked car will hold two hundred and forty sheep.

KEEP AT THE WELL EYE.

NINE persons out of every ten, with a cinder or any other foreign substance in the eye, will instantly begin to rub it with one hand while hunting for a handkerchief with the other. This is all wrong.

The right way is not to rub the eye with the cinder in it, but to rub the other as vigorously as you like.

A few months ago, I was riding on the engine of a fast express, says a traveler. The engineer threw open the front window of the cab, and I caught a cinder in my eye which gave me pain.

I began to rub the eye desperately, when the engineer called to me:

"Let that eye alone, and rub the other one."

Thinking he was chaffing me, I only rubbed the harder.

"I know the doctors think they know it all; but they don't, and if you will let that eye alone and work on the other one, you will soon have the cinder out," shouted the engineer.

I did as he directed, and soon felt the cinder down near the inner canthus, and made ready to take it out.

"Let it alone and keep at the well eye," again shouted the engineer.

I did so for a minute longer, and then, looking into a small glass the engineer handed me, I saw the offender on my cheek. I have tried it many times since, always with success.—*The Interior*.

VELOCITY OF STEAM.

THE velocity of steam escaping under pressure is known to be very great, though few are aware that even under a moderate pressure of, say, twenty or thirty pounds to the square inch, it is, generally speaking, equal to that of a projectile fired from a cannon. A notable example of the high velocity of escaping steam is that of a steam whistle in which a jet of steam, little thicker than ordinary writing-paper, produces a sound that can be heard farther than the loudest thunder. The writer has often heard a railroad whistle eighteen to twenty miles away, while thunder is seldom heard over ten or twenty miles. Every engineer knows how little his safety-valve lifts, while the whole current of steam required to run his engine escapes therefrom, and how small a leak in a valve will cause his engine to "creep," provided his piston-packing is tight.

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 35—What Do You Suppose Will Happen When a Superstitious Woman with a Phoney Dollar Moves to Ohio and Leaves Her Cat Behind?

"WHY is it that a woman will swat and scowl and scold all day, then fondle the cat in the evening?" asked the bill clerk.

"For the same reason," replied the rate clerk, who is wise beyond his years (he has to be wise to be a rate clerk), "that a man will kick a boy and whistle to a dog."

"Why is either or both?" asked the check clerk, who should have hurried out to itemize the household goods from the van that had just backed up at the freight-house door.

The agent looked wise; selected a few healthy Websterians, and handed them out thus:

"Professor Broadpate of Tweedledee University says, primordial man and the primeval dog occupied the cliff cave together until the abysmal friendship became instinctive and has endured throughout all ages."

The agent tilted his head and glared through his bifocal glasses with a superior wisdom.

Thereupon the rate clerk thrust his nose into I.C.C. 6611, muttered something about "See note 'q': same as Weehawken; arbitrary; differential; note paragraph C, rule 99. Same as Oyster Bay, only different. Wilkesbarre base. Harlem divisions L.C.L. not accepted; embargo on C.L.—"

The bill clerk lit onto the billing machine with a clatter which answered for applause. The check clerk took tardy notice of the call of the drayman which had grown grossly vociferous.

The agent resumed the perusal of a claim wherein it was set forth that five pounds of prunes had escaped from a sack by reason of a hole caused by a nail in the floor of the car, and entailing a total loss of forty-two cents, "subscribed and sworn to," etc., etc.

This bit of curiosity on the part of the clerks, and the scientific explanation on the part of the agent, were brought about by a little incident of the day before.

A woman shipped her household goods to another State. The drayman with a van unloaded them into the freight-house.

Then the woman appeared at the freight-house office, worried, tattered, and dishevelled to perform the last sad rites of signing the shipping order and releasing the goods to the prescribed valuation.

"Sign your name right there," explained an obliging clerk. "Yes; right on that line. Your first name in full, and then again on that line."

"You write it. I'm so frustrated, I can't," she said.

"You'll have to sign it," protested the clerk. "We can't sign it for you."

"Then you'll have to hold this cat," exclaimed the woman.

She made a hocus-pocus movement and drew from the folds of her shawl a scraggy

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cat. It had a sad hate-to-leave-my-happy-home look and gave a wild you-are-the-cause-of-this-blink at the clerk, who backed off a few feet.

"Set it down on the floor."

"It might get away. It's so scared, poor thing. You hold him a minute—and be careful."

The clerk lent a reluctant hand. The cat squirmed uneasily and cast suspicious slants.

The woman labored with her first name, left a blot and ruined a pen.

"Don't see what you have me do that for," she growled. "It's just red tape, ain't it?"

"We have to have it that way," grunted the clerk. "Twelve sixty. Pay the cashier there."

The commercial transaction being out of the way, she again assumed the custody of the cat.

Raising her voice, she called out: "Do any of you gentlemen want a nice cat to take home with you?" She held him up, arched and limp, for inspection.

"What's his name?" asked the bill clerk.

"Tobias."

"I don't like the name."

"Land sakes! You could call him something else, couldn't you?"

"DO ANY OF YOU GENTLEMEN WANT A NICE CAT TO TAKE HOME WITH YOU?"

"It might hurt his feelings."

"Cats don't care so you feed them well and they have a warm place to lay around. They are just like men. You would like Tobias. He ain't what you would call a stylish cat, but he is a good cat. He stays so clost. He's just like one of the family."

"Why do you want to give him away?"

"I'm moving to Ohio. It's bad luck to move a cat. Law's a me! I thought everybody knew that."

"What would happen?" asked the rate clerk.

"Some of the family would die, or the house would burn down, or we would lose all our money, or something else dreadful would happen. It's bad luck to move a cat. I wouldn't take the risk."

"We ought to have a nice hand-raised, home bred cat around this office, but you will have to see the cashier about it."

"I wouldn't want him to stay here. The cars might run over him. Poor Tobias! That would be awful. I would just as soon have the bad luck myself as to have Tobias run over."

"I'll tell you what you do," said the rate clerk. "Take him over to the ticket office and give him to Chauncy, the ticket man. He'll take anything any one wants to give him."

She went across. Chauncy looked the cat over with the inspection of a live-stock expert, and delivered a critical opinion.

"Don't seem to be Angora or tortoise-shell, or Chartreuse, or Chinese. Mixed strain; mostly tabby and tom. Who told you I wanted a cat?" asked Chauncy.

"They sent me over here from the freight-house. They said you'd take him. I am moving to Ohio. I can't take him along. It's a bad luck, you know, to move a cat."

"That's right," said Chauncy. "Never move a cat, or you'll lose your teeth, or your hair will come out, or some other dreadful thing will happen. That's me. I'm liable to move any time, and I'd have to leave him. That would be sadder than I could bear. He's not one of them Kilkenny cats, is he? He's not one of them midnight prowlers and porch-climbers, is he? Does he cultivate Vognerian orchestra and grand opera associations?"

"Oh, my, no! Tobias ain't that kind. Tobias—"

"Is that his name? Tobias. Flossy name, all right. 'Toby for short."

"Tobias just lays around where its warm and comfortable and purrs and mews and 'tends to his own business."

"That's fine!" returned Chauncy. "I wouldn't mind having that kind of a job myself. Did you ask the cashier at the freight-house if he would take him—the one with the glasses and the bald head? Try him. Then see the agent himself. The elderly man with a scared but fatherly look. He's hardened to all kinds of purring, mewing, and yowling, and one extra performer thrown in wouldn't make any particular difference to him. That's the happy-home solution for Tobias."

The woman retraced. On the freight-house platform she met the old drayman who had crated and delivered her goods.

"What," cried the drayman, "you ain't takin' that cat along, air you? You surely wouldn't do anything like that, woman, would you? If you take a cat along with you nothin' would ever go right again. Give him away to some one!"

"I'm trying to," replied the woman eagerly. "Do you know some one who will take him and give him a nice home? I don't want to leave him around here. He might get run over with the cars."

"Let me see," pondered the drayman gravely. "Maybe I could fix it. Let me think a minute."

The drayman gave an imitation of going into the matter of providing a home for Tobias very thoroughly. He made a number of calculations of available homes. In the mental strain incident thereto, he sat down on a barrel of glassware with legs relaxed. Presently he brightened up.

"There's something about these signs, ma'am, that people generally don't understand. You see I'm a drayman. I've been movin' people comin' twenty-five years next March, or is it April? No, it's March—24th of March—comin' twenty-five years the 24th of March, that's it. I've moved millions; maybe not that many, but thousands of families, anyhow. Some people don't pay any attention to signs and luck, and don't believe in 'em—but I do. I caution 'em all. Don't take the cat or the broom or break the lookin'-glass. Them's three things that mustn't be done. Breakin' the lookin'-glass is worst of all. If the lookin'-glass gits broke, some one in the family will die. I've paid particular attention to that. It never fails."

"Do they die hard?" asked the woman anxiously.

"Most of 'em do," replied the drayman with grave assurance. "Most of 'em come to a violent end."

"Maybe I'd better leave the looking-glass, too," said the startled woman.

"It won't do any good," continued the drayman. "It's yours. You can't get away from it. If you would leave it and some one else that's careless would break it, the bad luck 'ud come to you, not them. See? But I've packed it so it won't break. I know the responsibility that's on me, when I'm packin' the lookin'-glass. In your'n there's a pillow in front and another behind, and all wrapped up with two comforts. I reckon if they break that they'll haft to use dynamite instead of just durned carelessness.

"Now, about a broom. If you take a broom along you'll have a fire and burn

out, and that's mighty bad just for an old broom. I never let a family move a broom. If they're ignorant or stubborn, I hide 'em, or stick 'em under the seat of my van. I've saved many a family that wouldn't thought of it theirselves. I am always lookin' to protect my customers that I'm doing draying for. That's me. 'Help them that helps me.' That's my motto.

"No, of course not. Your broom ain't with your household goods. I seen to that. When you get to Piqua you'll be short a broom. It ain't no joke. It's for your good. But that cat. If you move that cat you'll lose all your money. That's what movin' a cat does!"

"Won't you take him; please do," pleaded the woman half frantically, holding the wild and wondering-eyed, the hoodooed and outcast Tobias at arm's length toward the drayman.

The drayman shrunk from the responsibility of the charge.

"I'd like to, mum, but I can't. I'd haft to kill him. I can't have cats around my place. I'd have to make way with him. I could put him out —"

"No, no!" cried the woman, hugging the blinking and unconscious nemesis to her bosom in protection. "Tobias ain't goin' to be killed!"

The drayman brightened up with a new thought.

"There's another thing about luck and hoodoos and the like. They sure do play queer pranks, lady. I've been movin' people so long, I've learned all about such things, all the way from Friday an' the dark of the moon to the lookin'-glass. Now, take that cat there," the drayman raised his finger and pointed with a wise and impressive gesture, "take that cat there. If you'd take him along with you yourself, move him with you a purpose, you understand, you'd have all kinds of bad luck. But listen. If that cat would happen to find you, or follow you to your new home hisself, and you wouldn't know anything about it, or have any hand in it, it would be just as much good luck the other way, as it would be bad luck a takin' him along. Ain't they some queer freaks to luck, ma'am?"

"But Tobias couldn't follow us," protested the woman. "We're movin' to Ohio!"

"IF YOU MOVE THAT CAT YOU'LL LOSE ALL YOUR MONEY."

"Cats do some wonderful things," assured the drayman. "Dumb animals have got instincts that we don't know anything 'bout. They turn up sometimes when only Heaven knows how they git there. They got senses what we ain't got."

The drayman posed thoughtfully. Then his face lighted up with a sudden solution.

"I got it, lady, leave it to me. I know where I can place your cat, where it will have the same care you give it. I'll see that it gits a good home."

He reached over with coarse red hands and gripped Tobias.

"THE RED CROSS DIDN'T ARRIVE ANY TOO SOON."

"Are you sure he'll be well treated?" asked the woman dubiously.

"Dead certain, lady. I know the family."

"And will you tell him we boil the milk for him and always keep a pink ribbon round his neck? He's ust to it."

"I'll see they understand it, lady."

"And always feed him on a blue china plate. He's never eaten on anything else."

"Yes, mum."

"And have him always sleep in a feather bed. He's never slept on a mattress."

"Yes, mum; they'll understand all about it."

"And when they have porterhouse steak, feed him the lean under the bone. It's the tenderest, you know. He's never had anything else."

"It's a little trouble for me, ma'am, but I'll do all I can. They'll understand it, and they'll treat him just the same as you do. You can depend on my word for that. As I say, it will take a little of my time. Of course, it will be worth a little something."

"Will a dollar pay the bill?"

"Yes, mum, I reckon that will be enough."

He pocketed the coin and turned his head while there took place the sad scene of parting, in which there was a confusion of endearing caresses, affectionate names, and smothered osculations.

The drayman got away with the cat. When the woman turned her back he slipped into the freight-house where her household goods were being trucked into a car. Among the effects was a coop of chickens.

The drayman pried up a slat and slipped Tobias in with the chickens. Then he renailed the slat.

"That's easy money," chuckled the drayman to the freight-house man. "I have found a happy home for Tobias. He's goin' along. She'll be tickled to death when she opens up them Plymouth Rocks and out jumps Tobias."

It was a clever idea neatly executed, and was played according to the rules of that inscrutable fate that determines the difference between good luck and bad; that makes a fine distinction between the cat that was taken along and the cat that was sent.

The only blunder in the whole arrangement was on the part of the drayman who, possessing those human qualities of exultation and braggadocio over little triumphs, held up the silver dollar and chuckled gleefully and triumphantly to the freight-house man.

"Ain't I in on that?" asked the freight-house man.

"Well, I guess not," replied the drayman. "You ain't played no part in it. I explained all about movin' luck to her. It was me that figgered out the way for her to git her cat and save her luck, too. That's expert advice. People haft to pay for expert advice same as goin' to see a doctor or a lawyer."

"Well, I'm checkin' these goods," responded the freight-house man "The way-bill and bill ladin' call for one coop of chickens. They don't read mixed load chickens and cats They don't read even one cat. There ain't no cat goin' to dead head through on this billing."

The situation was something like getting sugar or my lady's finery through the custom-house, where, in times past and perhaps in times to come, there seems to be the ancient and homely way of putting something across by slipping the coin into an upturned palm.

It is a crude and awkward procedure, but the freight-house man was ugly and obstinate and stood firmly on the hair-splitting distinction that one coop of chickens was not one coop of chickens when it contained one cat, and that classification rules must be observed to the letter If the coop was billed "chickens," it must be "chickens"; if billed "cats," then cats it must be.

The matter was compromised by the drayman paying the freight-house man a silver quarter.

The drayman went into the office

The freight-house man gave the coin a critical inspection. It was a smooth quarter and it aroused suspicion. There are places where they pass but for twenty cents. The freight house man had misgivings that the drayman had purposely short changed and flimmed him out of five cents in the double dealing transaction

Obeying an impulse of resentment under the guise of doing his duty, he pried up a slat and lifted Tobias out of berth No. 13 and renailed the coop.

The drayman's moving van was standing near the freight-house door, and the freight-house-man slipped Tobias into it, where he cuddled up in some straw under the seat, oblivious of the departure and distress of his mistress, unconscious of the intrigues of which he was the central figure and unconcerned for the future

The woman took the next passenger-train for Ohio, assured that Tobias was to be well cared for and secure in the faith that no ill-luck was incurred in the process of moving.

Later the drayman took up some freight bills and passed some coins over the counter to the cashier.

The cashier slid a silver dollar back to him.

"Not at this bank," said the cashier.

THE DRAYMAN PRIED UP A SLAT AND SLIPPED TOBIAS IN WITH THE CHICKENS.

"See how blue that is. Feel it. Just like oleomargarin. Put your teeth on that and get the grit. That's glass and pewter. You ought not to lug that kind of hardware around, to say nothing of trying to pass it as money. Look out for Uncle Sam!"

The drayman blinked his eyes in a baffled and perplexed manner, rubbed the coin, and bit it.

"That woman what moved to Ohio gave me that, I'm dead certain," said he.

"The thing for you to do is to drop it in the well," advised the cashier, "before an officer nabs you."

"What would they do to me if I'd pass that on some one?"

"If you didn't know it was bogus, they would simply make you take it back in exchange for real money. Since you know it's bad, if you try to keep it in circulation, you're a standing candidate for the striped-garment colony. You can't plead that you didn't know, for you do know. Every minute you walk around with that piece of metal in your pocket you are an uncaught criminal. If you try to pass it on me again, I may see that some one knows of it who ought to know. By the way, what did you do with that woman's cat?"

"I'm sending it to her. It's with the household goods. I slipped it in the coop with the chickens. It's not bad luck to send a cat. It's bad luck to take one—"

"Save that kind of talk for the women," protested the cashier. "If that cat kills a bunch of chickens on the journey, you may find it bad luck to send one. Don't forget that!"

"I had some bad luck last night," said the drayman mournfully to the freight-house man a day or two later.

"How's that?" asked the freight house man.

"You know that pointer pup of mine that I paid ten dollars for last month? They's a stray cat around my barn last night almost put him out of business. I heard an awful rumpus out at the barn about two o'clock, and I lit the lantern and went out there. The pup was all clawed up. He'd been in a mix with that cat, and the Red Cross didn't arrive any too soon. I took him up to the house and patched him up. I thought one of his eyes was gone, but I guess he'll be all right after a day or two. They can't anybody's cat hang around my premises. I got no use for a cat, anyway."

"How's the pup coming along by this time?" asked the freight-house man of the drayman the day following.

"I got him shut up in the crib. A pup's got no business with a cat. I ain't feelin' very well to-day; I didn't get much sleep last night. That same durned cat I was tellin' you about yowled and howled around my place all night. I sailed out after him three times, but he got away every time. About the time I'd git back to bed, he'd slip up a little closter and let out another one of them solos of his'n. Say, have you still got that double-barreled shotgun you ust to have?"

The freight-house man nodded his head.

"Bring it down, will you? That cat's too fresh. I want to pump both barrels into him."

"Say," said the drayman next day, "this is gittin' something fierce. You know what that cat done last night? Killed six of my little buff Plymouth Rock chicks out of that settin' of eggs that cost me five dollars a while back."

"I forgot to bring the gun," said the freight-house man, "but I'll have it here to-morrow noon. That's sure."

That night the drayman, with great care and deliberation, prepared a *pâté* of Hamburg steak *à la* strychnin, and placed the succulated tidbit at the spot under the barn from which the midnight marauder would most likely issue forth. During the night, he heard the creeping tread and the familiar call. At early dawn, he slipped out to gloat over death and destruction.

What he saw filled him with fury. The pointer pup lay near-by in cold and stony death. In one bunch of convulsions, he had passed from this vale of cats.

In some way he had gotten out of the crib and had beaten the cat to the fatal offering. He was a desperate drayman. At noon he got the double-barrel shotgun from the freight-house man.

When the drayman appeared at the depot next day, the right side of his face was done in courtplaster and absorbent cotton.

"I loaded her too heavy," he explained to the freight-house man. "I got one good shot, but she sputtered and kicked and nearly put me out of business. I forgot to hold her tight. You got to hold a shotgun tight. That shoulder's pretty sore, and there's some skin off my cheek and neck, but doc dressed 'em up.

"I set that gun last night right where I could get it handy. I don't know how

"WHAT ARE YOU DOING WITH THAT GUN?"

long I'd been asleep, but my wife punched me and says, says she: 'Pap, did you hear that?'

"'Hear what?' ses I.

"'That noise,' ses she.

"I listened a minute and I heard it—that sneakin', creakin', crawlin' noise.

"'It's burglars in the house,' said she.

"'It's that durned cat,' ses I, crawlin' out and gittin' holt of that Daniel Boone of your'n.

"Right then there come an awful crash of china from the sideboard. Two jumps, and I was in the kitchen just as pussy made a wild leap from the sideboard to the open window. Now, I ain't no Buffalo Bill or Doc Carver, but I just let loose both barrels in the general direction, and it brought on our glorious Independence Day, with pinwheels, and skyrockets, and shooting stars!

"What would our magnificent country be if it hadn't been for George Washington? Three cheers for the old flag! Let the band play! Them were the fleeting emotions I had! I didn't git up for a good while, because my wife fainted and I had to come to first. As quick as I could, I went out and looked all around, but they wasn't any scattered remains.

"I ain't goin' to wait until night any more. I'm goin' right after him this afternoon. They ain't goin' to be nothin' else done until I pump that cat full of buckshot."

The noon train from Ohio brought in a woman passenger. She crossed the track and made a bee-line for the freight-house man.

"I'm the woman that had my goods shipped to Piqua, Ohio, the other day," she explained. "Maybe you can tell me where that drayman lives that hauled my things to the depot. I gave him my cat and paid him to find it a good home. The first night I got to Piqua, I had an awful dream about Tobias. I dreamed he was an outcast and was being hunted down to be killed. Last night I dreamed it again.

"When you dream a dream two times, it's a presentiment and a warning. Some people might call it foolish, but I don't. Do you believe in dreams?"

"Not as a rule, ma'am," replied the freight-house man; "but this onct you dreamed it exactly right. That cat of your'n is hanging around that drayman's barn, and the drayman got a shotgun, and right this minute he's trying to draw a bead on To-

bias to fill him full of buckshot. Maybe you're too late now—"

"Show me, quick!" cried the woman excitedly.

He gave her hurried directions and she lit out.

The drayman was patrolling the premises—sort of reconnoitering, as it were—when the woman came upon him.

"What are you doing with that gun?" she demanded shrilly.

"Nothin' much, ma'am," he answered without looking up. "Just huntin' for a stray cat that's been raisin' the dickens around here for the last week."

The woman darted into the barn. In two minutes she emerged carrying the gaunt and fugitive Tobias. She found him by a hocus-pocus Hindu instinct. Then she thrust a clinched fist under the drayman's nose.

"You villain! You wretch! You swindler! You took my dollar to find Tobias a good home, and here he is under this barn, and you a hunting him with that gun! Give me back that dollar!"

The drayman weighed two hundred and was armed to the teeth; nevertheless he wilted into a foolish helplessness against this onslaught. Without a word, he dug down and handed over the coin that the woman demanded.

The woman lugged Tobias back to the freight-house, where he was amply fed and tucked away into a basket.

"I have you to thank," said the woman warmly to the freight-house man, "for saving his life. I am thinking I ought to give you a quarter."

She held out the same silver dollar.

The freight-house man pocketed the coin and dug up seventy-five cents return change for the woman. By an artful manipulation the smooth quarter was the middle coin in the transfer.

Tobias traveled to Ohio first class, lower middle, in the basket, jealously guarded and every want anticipated.

"It may be bad luck to move a cat," philosophized the woman, "but it's a whole lot worse luck to leave him behind; and when you dream the same dream twice, that's a sign it's time to act."

In the evening the freight-house man asked the cashier to change the dollar.

"Out of my sight with it!" cried the money man. "Look at it! Feel of it! It's made of putty. That's the second one of those paste dollars this week! Avant!"

"Say," said the freight house man next day to the drayman, "I wish you'd killed that infernal cat before that female got to you."

"How'd that cat git there?" asked the drayman.

Moral, N.B., and P.S.—Never overwork and never capitalize a woman's little superstitions.

Moral, N.B., and P.S. No. 2—Keep the lead dollars away from the freight cashier.

MEMORIAL TO PHINEAS DAVIS.

PREPARATIONS are being made by the Baltimore and Ohio Railroad, to erect a tablet to the memory of Phineas Davis, inventor of the first coal-burning locomotive in America, whose body occupies an unmarked grave in the cemetery of the old Friends' Meeting House, at York, Pennsylvania.

The career of Davis is among the most romantic of American inventors. Beginning as an apprentice to Jonathan Jessop, a noted watch and clock maker, he created a sensation in 1820, by producing a perfect time-piece no larger than a nickel. Later, while he was connected with the firm of Webb, Davis & Gardner, machinists, he had a share in the building of the first iron steamboat in America, which was launched on the Susquehanna River. In 1832, the Baltimore and Ohio offered a prize of $3,500 for a coal-burning locomotive that would excel all others in a competitive test, and in this, Davis won over Peter Cooper and other noted American inventors. He was then taken into the service of the company, and three years later, as a result of many experiments, he brought out another engine which was claimed to be superior to anything that had been produced in America or England prior to that time

On the trial-trip, over rails laid on wooden stringers, Davis lost his life through the breaking of one of the rails. He was only forty years old at the time of his death, and as the development of motive power advanced, he was forgotten through achievements that overshadowed what he had done. His case was lately brought to the attention of the railroad company by the secretary of the York County Historical Society, said to be the only man living familiar with the location of the grave.

SOME SAND AND MUCH GRAVEL

BY GUY C. BAKER.

Business Is Business Even if Cupid Interrupts the Plans of a Railroad Builder.

WITH that self-satisfied demeanor that betokens the divestment of business routine for some pleasant recreation, Richard Collier stepped onto the porch of the small frame office and, softly humming some nondescript air, glanced along the road that zigzagged itself into perspective over the hills.

His eyes then wandered complacently along the ridge of hills extending for several miles in either direction parallel with the railroad that shimmered drearily under the slanting rays of the afternoon sun.

He watched the swarms of laborers toiling on the slopes; he could hear the fussy engines of the steam shovels as they poked their cyclopean noses farther and farther into the great banks of gravel; he noted the long gravel train worm its way out of the pits as, one by one, the empties were magically filled by the giant shovels.

Those hills were literally colossal heaps of gravel from base to summit. They were veritable gold mines—only the gold was gravel. Collier's complacency was justifiable. He owned those hills.

A number of years before, the hills and surrounding uncultivated country had been owned by an eccentric old fellow named Job de Kemp. De Kemp died leaving a will, in which he devised all his property to a trustee, with power to sell, lease or rent, in trust for his niece, Mara de Kemp.

The will provided further that the leases and rentals should terminate, and all the estate become the absolute property of, and be turned over to the niece at her marriage. On the failure of the niece to marry, or in the event of her death before marriage, the vast estate was to go to certain charitable institutions.

The railroad company had early leased a right of way back through the hills, over which they built a switch to the isolated pits of a man named Senman. Shortly after, Richard's father purchased all the De Kemp land, subject to the lease of the railroad company. At the death of the senior Collier, Richard had inherited the valuable hills with their rich deposits.

But the meditations of this practical, hustling, young man just at that particular moment were neither occupied with the singular history of his possessions nor with the noisy activity before him.

His reflection carried him to more felicitous byways—he was thinking of her. Wherever man lives, there never has been business cares so complex as to entirely exclude a "her." In fact, ever since that memorable day when this particular "her" unexpectedly appeared at Snooks farm, and was ceremoniously ensconced in the spare bedroom—a distinction that indubitably marked her as the "star boarder,"—his thoughts had been of her.

That first evening, Richard had searched out his gracious landlady and proceeded to ply her with a fusillade of questions concerning the fair newcomer, but, to his surprise, that amiable person, a mischievous twinkle in her eyes, only said:

"Now you pay 'tention to me, Mr. Dick, and don't you forget what Aunty Snooks tells you neither! I ain't 'lowed to tell you who that young lady is, nor nothin' 'bout her. I know who she is, and I know she is pertic'r'ly all right and a lady from the ground up, and that's s'fficient. Besides, what business is—"

"Stop, Snooks, for Heaven's sake stop!" protested Collier with a laugh, "I'll bridle my curiosity. But how am I to address her?"

"You ain't got no business addressing her as I know of," was Mrs. Snooks's good-natured sally as she turned and plunged into her culinary tasks.

With that the young man was compelled to be satisfied; and although he could learn but little concerning the refined, well-groomed girl with her wealth of sunny hair and her eyes of quiet gray, yet he was firmly convinced from the very first that she was the loveliest bit of femininity that he had ever run across.

But Mrs. Snooks's well-intended circumspection was hopelessly futile in its effort to cope with an impressionable, hot-blooded young lady marooned in a picturesque, quiet country home with a determined, vigorous, good-looking young man with an automobile.

At the end of a week, Richard and "Miss Mystery"—his name for her—were inseparable. At the end of two weeks, even Mrs. Snooks capitulated unconditionally with:

"Well, let them go, Gallagher! Ain't they both thoroughbreds?"

Thus the little romance progressed by forced marches until, only the evening before, Richard had tenderly whispered the old, old theme into the willing ears of "Miss Mystery." He was to have his answer this very evening.

His agreeable reflections were rudely interrupted by the fussy arrival of the afternoon passenger-train which came to a stop before the makeshift of a station, amid the rasping grind of air brakes, the clanging of the bell, and a cloud of dust and smoke.

As young Collier's heedless glance regarded the alighting passengers, his pleasant reverie was suddenly dispelled as he recognized, in one of the arrivals, Stutz, the superintendent of the road, already picking his way toward the office.

"Demmit," gloomily murmured Richard, "I suppose old grump will keep me here until dark again."

"Howdy, Collier," greeted Stutz with his characteristic, exasperating assurance, "just ready for flight, I observe. Well, I will detain you but a minute. I merely desired to mention the matter of the renewal of your shipping rates. The present contract expires to-day as you remember."

"Sure, I remember, Stutz," Dick replied as he clasped the visitor's hand, but making no move to enter the office, "you did not need come all the way out here to divest yourself of that information."

"But you see—"

"Pardon me, Stutz," interrupted the young man, determined to head off what he was convinced would develop into a two hours' confab, "I have a pressing appointment, and cannot take the time to draw up a contract to-night. Just draft a new one to-morrow and mail it to me for signing."

"Oh, as to that," smiled Stutz, in his inscrutable manner, "that part will be all right, all right, I assure you, Mr. Collier. However, I simply desired to inform you of the recent action of the company in raising your rate to—"

"Raising my rate?" broke in Richard, incredulously.

"Yes; to seventy cents a yard," finished the official imperturbably.

"Surely, Stutz, you are not serious, are you?" faltered Richard, incredulity and amazement struggling for dominance in his eyes and voice.

"Never more serious in my life, old man," was the emphatic answer, "and the increase goes into effect to-morrow!"

For the interval of a full half minute, Richard stood speechless, his face ashen, his eyes like glints from a flashing rapier, his lips compressed cruelly. Quickly stepping down he faced Stutz on the level, and burst out:

"Seventy cents! Why not seventy dollars? One is as reasonable as the other. Why, that is prohibitive; worse, it is ruinous, insane, imbecilic! I'll see your lop-eared, burlesque of a dinky railroad in Hades first!"

"Don't talk foolishness," calmly suggested the superintendent, "you must simply adjust yourself to the new order of things—merely raise prices—"

"Only the effervescence of an idiot would suggest raising prices when the crushed stone people are yelping at our heels now," retorted Richard angrily. Then his face relaxed under the warmth of a new hope as he triumphantly exclaimed: "See here now, you people had just better cut out this rate boosting business, or I will refuse to furnish another single yard for the fills and ballast on your Clifton extension!"

"Your estimate of our foresight is not

flattering," replied Stutz, with the demeanor of one playing his trump card, "but we anticipated your action. We will at once relay our switch back over our right-of-way through your property to the Senmar pits. We will furnish our own gravel."

"The dickens!"

"Tut, tut, Collier," said the older man quickly, "that's business, you know, that's business. Think it over. To-morrow afternoon I will bring the new contract."

Richard watched the superintendent deliberately turn and walk back toward the station. He was stupefied. The bottom of his business achievements seemed to have dropped out of sight.

An undefined, poignant sense of loss crushed him. He dared not attempt to analyze his terrible disappointment.

Slowly his glance wandered to the hills —his hills, teeming with activity; to the distant road; and, finally to the mouse-colored machine. A lump sprang up in his throat; the boyish buoyancy of five minutes before was gone; the mist of emotion blurred his sight.

With his eyes fixed on the ground, he slowly passed out to the waiting car. With one foot on the running-board, he paused, and, his eyes harboring a far away look he murmured:

"Looks like it's all up, Dick, old boy— 'Miss Mystery' and all."

II.

THE portentous mass of purplish-black clouds was fast enshrouding the close of the hot, sultry July day in premature darkness. The unnatural stillness was oppressive and disquieting. Distant thunder rumbled ominously. The weird, uncanny light that yet remained intensified the blackness in the West. All nature seemed awaiting the storm—motionless, breathless.

Casting frequent, anxious glances over his shoulder at the threatening clouds, Richard Collier grimly gripped the steering-wheel as the powerful automobile hurled along the country road in a mad race to reach Snooks's farm.

With terrific swiftness the whirring machine swept down Rockaway Hill, bumped over the little bridge at the bottom, and, momentum undiminished, sped up the steep hill beyond.

Racing over the summit, it flashed past the hurrying form of a girl. The fleeting glimpse that Collier had of her as he passed, revealed a glorious, fear-imprinted face that made his heart stand still.

It was "Miss Mystery."

Savagely shoving back the emergency lever and jamming down the foot-brake, he brought the throbbing car to an abrupt stop. Springing to the ground, he opened the door to the back seat and waited anxiously for the hurrying girl.

"Hike in here! Hurry!"

"Oh, Richard, how fortunate! I was so frightened! The storm!" she was breathlessly pouring forth as she came up to his side.

"We'll beat it yet, but we will have to take to our heels!" broke in Richard with a tone of imperativeness. Without further ceremony, he boldly gathered the trembling girl in his strong arms, deposited her in the roomy back seat, slammed the door shut, sprang back into the driver's seat, shoved down the high-gear clutch, and, before the girl could grasp the situation, the car was once more shattering the speed records.

A blinding, vicious streak of fire rived the black cloud wall with zizzag ferocity, and, instantly, the stillness was shattered by the rending, deafening, crashing report of a thousand pieces of ordnance.

With an apalling roar that drowned the whirring, whizzing machine, the furies of the air let loose in tumultuous pandemonium.

The air was filled with flying leaves and missles. Another flash of lightning and peal of thunder, and then a deluge of blinding, driving rain.

Checking the speed of the machine, Collier switched on the electric side-lights, then shouted back over his shoulder that there were rain aprons under the seat. Alarmed, the girl drew the aprons about her, and, tense and speechless under the spell of the storm, kept her eyes on the broad, square shoulders of the motionless driver as he leaned over the wheel peering anxiously ahead. Then *it* happened.

Simultaneously, with a terrific clap of thunder and a dazzling glitter of heaven-filled fire, a mighty monarch of the forest was struck. It trembled a moment, then with a mighty crash fell out over the road in front of the flying car.

There was a jerking grind of the brake, a warning cry, a terrific impact! Driver and passenger were hurled into the darkness—all in the span of a second.

Collier landed violently in the road, five yards away. He was instantly on his feet. He peered uncertainly about him in the darkness. He heard no sound save the roar of the storm. A flash of lightning revealed the automobile with front wheels perched high on the fallen tree. He groped his way in that direction.

Reaching the machine, he waited. Another flash of lightning, and he beheld the motionless form of the girl lying a short distance away. He groped his way to her side in the succeeding darkness. With a surge of thankfulness he quickly ascertained that she still lived.

Carefully wrapping his coat about her, he tenderly lifted her in his arms, and, stumbling along the slippery road in the darkness, started for a small, unoccupied hut which he knew to be not far away.

Once, when the lightning momentarily turned the blackness into day, he looked down into a pair of gray, wondering eyes that regarded him hazily. Presently a soft arm crept up over his shoulder and about his neck.

He pressed her closer, vivified by the warmth of her breath against his cheek. Then the girl's arm slipped limply from about his neck, and she swooned into a dead weight.

Collier reverently kissed her cheek.

At length—ages it seemed to Collier—stumbling along desperately, he reached the hut. Placing his precious burden on the floor, he paused for a moment to rest and regain his breath.

Carefully feeling his way in the darkness he finally reached the old fireplace. In a familiar niche, he found and lighted a match, which he quickly applied to some ready kindling. The flames were soon merrily casting grotesque shadows on the walls, and removing afar the tumult of the outside storm.

Turning to administer to his fair charge, he was confronted by the bewitching vision of "Miss Mystery," her chin propped on her shapely arms, and a pair of quiet, gray eyes watching him in bewilderment.

Collier sprang quickly to her side, knelt close before her, gently took her hand between his own, and, searching her face anxiously, with deep solicitude said:

"Gee! but wasn't that a bump! Are you hurt?"

"No, I think not—only somewhat mixed," she replied, running her hand over her damp hair, "but where are we, and how came we here?"

"I really cannot clearly tell you just how we did get here," he smiled, "but we are here—in the gloomy den of some bad ogre, in the midst of a vast forest—"

"How charmingly romantic! And you—you are the fearless knight I suppose," then blushing, "and just the proper setting for the—for the answer."

Richard suddenly turned pale. Slowly and silently he arose and assisted the girl to her feet. Then taking her hands in his, he looked into her startled eyes with calm determination, a world of bitter renunciation vibrating in his voice as he little more than whispered:

"I cannot permit you to give an answer to-night."

"I don't quite understand," she murmured, tremulously.

He quietly led her to a chair and sat down by her side.

"I will explain," he commenced. Then in the mellow warmth of the fire, the girl silently and attentively listened, while Richard recited all the events of the day that threatened to so materially alter his condition. When he had quite finished, and sat silent and dejected, she leaned forward and asked softly:

"And is that all?"

"All?" he asked bitterly, "is it not enough?"

"It is nothing, nothing, nothing!"

With a happy, little laugh, she placed two entrancingly lovely arms about his neck, drew him close, and—whispered something into his ear.

The effect was electrical. He sprang to his feet, lifted her and pressed her close in his arms as he fervently kissed her. Holding her from him for a moment, he exclaimed:

"If the machine wasn't perched up in that tree, we would do it to-night!"

"Why, Dick," demurely suggested the girl, "our grandfathers had no machines."

A flash of understanding passed between them. Laughing happily, arm in arm, they passed out into the night.

III.

The following afternoon, when Superintendent Stutz and the company's attorney alighted from the afternoon train, they found young Collier in his big machine,

the motor already pulsating preparatory to leaving.

"You seem to be in a hurry," volunteered Stutz, his tone conveying a suggestion of concern in spite of his outward assurance.

"You are good at a guess," nodded Richard, flashing a puzzling smile at the two visitors, as he pulled on his gantlets.

"Better shut down your engine," suggested the superintendent. "It will take some time to look over the new rate contract. We want it signed—"

"Of course you do!" Richard's enigmatical good humor was getting on the nerves of the dignified official. "Still seventy cents I suppose?"

"Well, yes, you see—"

"Sure I see," interrupted the young man, "but let me put you next to something on the dead level. I won't sign it!"

"Don't be hasty," warned the official imperturbably, shaking his head knowingly. "You must surely appreciate the serious consequences of such a course."

"Consequences," snapped Richard, his eyes flashing a challenge, his jaw muscles twitching. "I refuse to sign. Now what are the consequences?"

"We regret the necessity," coldly answered the official, "but the company will at once relay their own switch."

"A-h!" Richard feigned deep interest. Leaning toward Stutz, in a low, quiet voice, he asked, "where?"

"Why, over our right-of-way, through your land of course," was the retort.

"You have no right-of-way," corrected Richard softly.

Stutz regarded Richard for a moment speechless, half convinced that the young man was positively crazy.

"Your lack of seriousness is consuming the valuable time of both of us, Collier," scolded Stutz impatiently. "You know that our lease lives as long as Mara de Kemp."

"Provided always," corrected Richard, "that Mara de Kemp does not marry."

"Well," jerked out the official in a startled voice, "she is not—"

"She is married."

"I don't believe it!" exclaimed Stutz loudly. "When and to whom?"

"Miss de Kemp was married last night—to me," Richard spoke very low, but his smile was loud—very loud.

"The dickens!"

"Tut, tut, Stutz," mimicked Richard. "that's business, you know; think it over."

PENNSYLVANIA ON TRAIL OF SWINDLERS.

ADVERTISING swindlers are using the Pennsylvania Station in New York as a means of perpetrating fraudulent schemes in many parts of the country. A number of these have been brought to the attention of the Pennsylvania Railroad Company.

One swindle which has been extensively worked is that of a large advertising poster, which it is claimed, will be hung in the Pennsylvania Station in New York, and in various other stations along the lines of the company. This poster contains a large picture of the Pennsylvania Station, surrounded by advertisements.

A rather unique method is used by the solicitors for this scheme, in that they state that they do not want any money, only a signed contract, and that the auditor of the Pennsylvania Railroad will make the collection.

When the contract is signed, and the town is worked, the solicitors leave, and later on the printing concerns draw a draft on the advertiser for the amount of the contract. One of the contracts is marked, "Accepted, C. E. Keen, 308 Monadnock Building, Chicago, Illinois," and the posters are printed by a Chicago firm.

The Pennsylvania Railroad officials state that the company knows absolutely nothing about any of these schemes, and that it has no connection whatever with any of them. It was further stated that it was a well-established policy of the Pennsylvania Railroad Company not to have any advertising matter posted on its property.

ONE-MAN LOCOMOTIVES.

THE Swedish State railways are at present contemplating the adoption of a one-man locomotive for distances with a limited local traffic and a commencement has already been made over the Orebro-Adolfsberg line. The name, one-man locomotive is, in a way, a misnomer, inasmuch as the driver is not meant to manage the locomotive entirely alone, but the fireman has also to act as guard, collect tickets, etc., or the guard undertakes the duties of fireman, whichever way one may choose to put it. The Swedish State railways have bought ten locomotives with this service in view. This method has been used in other countries, more especially in Germany, for some time with most satisfactory results.—*American Engineer.*

The Buffer and Vestibule.

BY ROBERT AUGUSTINE.

THE life-saving characteristics of the air-brake, the automatic coupler, and the semaphore have been recorded many times, but among other inventions that have gone far toward making railroad travel a delight, the lowly buffer and the comfortable vestibule are frequently overlooked.

After all is said and done, however, and we get down to the real reasons why the big Pullman sleepers and the baggage, mail, and passenger-cars no longer try to crawl inside of one another like folding lunch-boxes when the train comes to a sudden and abrupt stop, we find that it is the buffer and the vestibule that keeps them in place.

Early Devices Which Indicated What the Simple Inventions of Ezra Miller and H. H. Sessions Would Eventually Accomplish in Making Railroad Travel Safer.

EXT time you board a train, pause long enough to take off your hat to the buffer and the vestibule. So quietly and so unobtrusively are their inestimable services performed every hour of the day and night on every railroad in the land that no one ever gives these lowly portions of the equipment so much as a grateful look, to say nothing of the appreciation they deserve.

On the contrary, the buffer is trodden under foot without a thought by the fidgety traveler who never can stay in the car where he belongs; while the vestibule, if it is honored with recognition at all, is regarded merely as a convenient opening in which the bread-line may deploy while awaiting the signal for the assault on the dining-car. It is only another instance, so common in this hard world, in which modest merit goes unheeded while noisy self-assertiveness gets all the applause.

When a train gets in trouble, it is always the buffer and the vestibule that stand between the passengers and harm. These two inventions have saved more lives, probably, than all other devices in use on railroads combined, the air-brake alone excepted. Any one who doubts this is invited to look through the files of daily papers and technical journals before and after the introduction of buffers and vestibules.

Before Ezra Miller and H. H. Sessions appeared on the scene, every account of a collision—and collisions were numerous in early days—included a long list of killed and injured. After Miller's safety platform had been introduced, these casualty lists shrunk to moderate proportions; and after Sessions's modern vestibule was adopted they nearly disappeared, a fact upon which the American public was felicitated in columns of editorials.

These congratulations only lasted until the wonderful inventions lost the zest of novelty. Now they are forgotten.

The First Buffer-Beam.

To appraise the vestibule and the buffer at their true worth, it is necessary to turn back to the early history of the railroad. When the first train on the Mohawk and Hudson Railroad pulled out of Albany, New York, on the morning of August 9,

1831, the five coaches were coupled together by three long links between each two coaches.

Engineer Dave Matthews was afraid the clumsy littlte De Witt Clinton locomotive couldn't start the train, so he opened the throttle with a jerk that would have caused the Clinton to jump off the rails if it had not been anchored to that train.

As it was, the first coach received a violent jerk. It got even by jerking the next, and so on, the whole five pitching forward with startling suddenness. Then the coaches bumped into each other.

This sort of thing continued in a lesser degree until the first stop was made. Conductor Clark, aided by willing volunteers, raided a fence for rails, which, when lashed to the coupling-chains, held the coaches apart after a fashion. Thus the need of the buffer was first recognized.

For more than thirty-two years after that historic trip was made, passenger-cars were coupled together with links and pins. This was somewhat better than the original Mohawk and Hudson arrangement, but it still left a fearful amount of slack between the cars, so that a railroad journey was an endless succession of bumps and jerks.

Or course, the light equipment of early days was not capable of exerting the tremendous force of a modern steel train, but the difference was only in degree, and not in kind. Just what railroad travel would be without the buffer and the vestibule has been eloquently set forth by the dynamometer. Like figures, the dynamometer cannot lie; unlike figures, the dynamometer never misrepresents.

What the Dynamometer Shows.

The dynamometer, then, has registered jerks as high as 300,000 pounds in freight-trains, the action of which is absolutely identical with that of passenger-trains. Most of the jerks, though, were below 180,000 pounds.

Apart from these heavy jerks, the dynamometer demonstrated that a train progresses by a continuous succession of surges, due to the unevenness of the track and curves. These surges are transmitted through the draft rigging to the whole train. Usually, they are under 35,000 pounds; but occasionally they run as high as a hundred thousand pounds.

Buffing shocks, which are the reverse of the jerks, vary from 5,000 to more than 300,000 pounds. Buffing shocks as high as 600,000 pounds have been recorded. The latter, however, were in the yard, not on the road.

Any one with a mind for arithmetic can figure out for himself exactly how delightful seventy-two hours of continuous bumps and jerks, ranging from 3,500 to 100,000 pounds each, would be in a journey on a train without buffers and vestibules from Chicago to San Francisco. No wonder the passengers of early days mourned for the good old stage-coach, and would not be comforted.

Bumps and jerks were by no means all the discomfort with which the passenger of former days had to contend. The old link-and-pin couplings kept the cars so far apart that, in passing from one to another, the traveler had to make a leap for life across a yawning chasm. If he didn't drop between the cars, he was likely to be wafted out over the landscape if he ventured out on the exposed platform when a high wind was blowing.

In case of collision, the frail platforms offered no resistance, but crumpled like paper. The heaviest loss of life on railroads of early days was due to this cause.

Miller's Platform.

This serious defect in passenger-cars was the subject of a great deal of discussion; but no one could suggest a remedy until Ezra Miller secured his first patent on his platform, buffer, and coupler in 1863.

Miller was born in Bergen County, New Jersey, in 1812. He was given a technical education, and prepared for the profession of civil engineer. He went to Wisconsin in 1848, where he lived the usual life of a pioneer until his attention was directed to the need of better cars. He undertook to find some means to protect the lives of passengers in case of accident, and also to promote their comfort.

The solution of the problem was the famous Miller platform. Strength to resist buffing shocks was given to the platform and coupler by placing them in line with the car sills, instead of below them, as had been the practise. To take up the slack, and so put an end to the bumps and jerks, Miller added a buffer to his platform.

It was simply a steel plate with an area of a little more than a square foot on a

single stem in the center line of the car. The buffer spring was of one-inch steel, five and a half inches in diameter, backed up by an eight-by-nine-inch timber fastened in the center platform sills. This relieved the draw-bar spring of considerable stress.

First Automatic Coupler.

The Miller platforms fitted together so closely that one could step from one to another in entire safety. In fact, it would have been impossible to fall between them. Such success could not have been accomplished with the old link-and-pin coupling. Of necessity, the first automatic coupler was introduced along with the Miller platform.

This was the renowned Miller hook, which every old-time railroad man will recall with a shudder. It cannot be denied that the Miller hook did splendid service in its day, but—

On a straight track you could generally couple two cars equipped with Miller hooks without trouble. Miller hooks have been known, also, to uncouple themselves while the train was running without assistance or solicitation; but when you wanted to cut off a car at a station or in the yards, it was different.

Having spotted your car, you seized the lever and "heaved on it." Next, you placed your feet to better advantage, took a fresh grip on the lever, and heaved again, and again, and yet again. Then you signaled the engineer to slack back, which he did after submitting some unkind remarks about "cornfield sailors who tried to go railroading."

Your partner came and helped heave on the lever, and, at length, the conductor sprang up to show how to cut off a car in the highest style of the art, but only succeeded in getting his hands soiled, which made him grouchy for the rest of the trip. Finally, a car-repairer came along and, those infernal hooks having wearied of each other's company, pulled the lever up with one hand.

Coupling an engine or a car with an ordinary draw-bar on to a Miller hook was the worst. You began by prospecting in a foot of wet cinders on the back of the tank for a crooked link. You never found it until all the cinders had been plowed over, which required strong finger-nails.

As there was only a little niche in the face of the hook for the reception of the link, it was impossible to make a coupling by guiding the link into place. Instead, the link was placed in the hook and onto it the ordinary draw-bar was backed.

There was no play for the link in the hook, and a man dared not stand between the cars where he could guide it properly, for fear the hook would swing out and slip by, as it did nine times out of ten. Coupling a Miller hook onto an ordinary draw-bar was like cracking an egg with a steam-hammer. It could be done, but it required a genius to do it and not lose his life.

The Miller platform, buffer, and coupler were first tried on the Chicago and Northwestern, and the Milwaukee and Prairie du Chien in September, 1864. They were hailed as the greatest life-saving inventions of the age.

Miller lived to see his inventions adopted by every railroad in the United States, and in many foreign countries. They earned a princely fortune, which he returned to New Jersey to enjoy. He died in 1885.

The Miller platform was a long step in the right direction, but it did not go far enough. Once given the cue, a host of inventors began groping after the vestibule.

The first patent for a vestibule was granted to Charles Waterbury, June 29, 1852, twelve years before Miller brought out his platform. It was a closed passage between the rounded ends of cars, with doors at the sides. Its object was "to protect passengers and exclude the dust."

It was tried on the Naugatuck Railroad, in Connecticut; but, being a flimsy affair of wood and canvas, was discarded as a failure at the end of two years. About the same time, similar affairs were tried in England and Russia with no better success. None of these early vestibules made any attempt to perform the functions of a buffer.

The next attempt to provide a vestibule was made by S. R. Calthorp, whose patent was dated August 8, 1865, a year after the Miller platform was brought out. Calthorp's idea was to build a cigar-shaped train with pointed prow and rounded stern, like a ship. The vestibule was there, but the Calthorp train looked like a caterpillar with the dropsy. It never received serious attention.

Frederick Upham Adams patented a vestibuled train on lines somewhat similar to Calthorp's twenty years later, but the vestibule was merely an incident in his scheme

to reduce atmospheric resistance. It was tried out by the Baltimore and Ohio Railroad, but was never adopted by any road.

C. S. Smith, among others, patented a vestibule in 1882. Smith's vestibule was a narrow passage, with a bellows-like hood remotely resembling those in use to-day, but with doors in the corners of the cars. It was not given a trial.

Sessions's Vestibule.

At length, H. H. Sessions hit upon the right idea. He patented his vestibule April 29, 1887. Then he showed it to George M. Pullman. The great palace-car builder bought the patent outright.

Immediately the vestibule was made the Pullman standard. As soon as possible, a vestibuled train was built and started on an exhibition tour of triumphal progress through the principal cities. It created a sensation wherever it went. It was then placed in service on the Pennsylvania.

The vestibuled train had not been running long when it figured in a collision—running into another train at forty miles an hour. The engine was demolished, but the passengers in the Pullmans were unharmed.

This spectacular demonstration of the value of the vestibule as a life-saving device was all that was needed to create a demand. The Wagner Palace Car Company built vestibuled cars without waiting for the formality of obtaining a license from Pullman. There was a great lawsuit, which resulted in a complete victory for the holder of the Sessions patent.

The vestibule, as Mr. Sessions first constructed it, was a narrow passage between the cars, with doors inside the line of the top step. A rubber bellows in a steel frame with broad steel face-plates, kept in contact by rods and springs, bridged the gap between the wooden passage on the car platforms.

A better buffer was needed than the Miller to make a continuous floor between the platforms. So Mr. Sessions made the first double-stem buffer the full width of the passage, with broad bearing surface and a steel apron to cover it and protect the feet of passengers. The face-plates of the vestibules performed the same service as the buffer by assisting to make a rigid connection between the cars.

Several unsuccessful attempts to improve the buffer were made. A. G. Leonard invented a hydrostatic buffer, which consited of two cylinders placed between the center sills fitted with pistons and a ram which held the buffer against a spring. There was a hand-pump in the car to keep the cylinders filled with water.

Leonard's buffer was tried by the Wagner Palace Car Company, but was quickly discarded. About the same time F. W. Webb, an Englishman, got up a similar contrivance with two cylinders nine inches in diameter and a two-foot stroke, filled with a mixture of petroleum, soap, and water. It was tried on the London and Northwestern. A German inventor patented still another hydraulic buffer, which was tried in the fatherland. Both were failures.

Solano's Face-Plate.

R. Solano patented a face-plate for vestibules, to be kept in contact by four pistons working in air cylinders. F. A. Fox, of New York, invented a face-plate held in position by screw and bevel gear. J. N. Barr and others tried various inclined arrangements by which gravity was used to hold the plates in contact. All these schemes were worthless.

H. C. Buhoup, however, really did improve the face-plate in some particulars. The Gould Coupler Company made a steel platform which was very much stronger than the old wooden platform, together with a two-stem, continuous-platform buffer, which made a smooth floor in all positions, on curves or elsewhere.

Finally, in 1895, the Standard Coupler Company placed on the market the three-stem buffer, in which the center stem was free, while the end stems were attached to an equalizer, which fully met the requirements of up-to-date railroad equipment.

Pullman, always quick to recognize a good thing, adopted it as the standard for his palace cars, and by August, 1898, his lead had been followed by forty-three railroad companies. The wide vestibule was now possible, so it was adopted and became universal as soon as cars could be equipped.

In out-of-the-way corners an occasional narrow-vestibuled sleeper, and even a coach with the old Miller platform, may still be found. A very few of these relics preserve the Miller hook. I wonder where one may be seen. Who of the many readers of THE RAILROAD MAN'S MAGAZINE knows?

THE DESERT MAIL.

BY CY WARMAN.

Written for "The Railroad Man's Magazine."

WHEN your feet have strayed from the everglade
To the shore of a shipless sea,
When the bar is crossed and, at length, you're lost
In its hushed immensity;
When you search the wild through the silence piled,
Waist-deep, for the desert trail,
There's a distant roar, like a sea ashore—
'Tis the moan of the Desert Mail.

Through the racing years there the engineers
Sit close to the cabin-pane,
As they urge their steeds where the white trail leads
Through the Land of Little Rain;
And out behind, on the desert wind,
Blown back, like a bridal veil,
Far, dim and gray, like the Milky Way,
Lies the dust of the Desert Mail.

When the gaunt wolves howl where the spirits prowl,
With ghosts of the desert's dead;
And the living, lost where their trails have crossed,
Mill 'round, while the sun paints red
The western skies; when the long day dies
And the stars shine dim and pale,
There's a beacon fair on the desert there—
It's the light of the Desert Mail.

Building Hotels by the Mile.

BY ANDREW CHANTON.

FIFTY-TWO years ago George Pullman and a carpenter named Leonard Seibert rebuilt two old passenger-cars belonging to the Chicago and Alton Railroad. When their work was finished, Mr. Pullman proudly exhibited to the railroad officials two plush-upholstered sleeping-cars of a distinct type, each containing ten sections, a linen-locker, and two wash-rooms. These were the first Pullmans. They were put into service on the Chicago and Alton. A berth rate of fifty cents a night was charged. The brakeman made up the beds. To-day there are forty-five hundred big, comfortable Pullmans gliding over the rails in this country, and 7,500 employees are supplying the increasing demand.

Passengers Did Not Wear Their Boots to Bed as Was Predicted, and Gladly Paid the Price that Mr. Pullman Asked To Ride in His $24,000 Cars.

"IUBIQUITOUS Hotel Concern" is the name that George Mortimer Pullman delighted in giving to the enterprise of which he was the Aladdin. "In the desert, on the prairie, aloft in the mountains," he would say, "our traveling inns come along and pick you up out of the discomforts of the waste places and carry you on, surrounded by the luxuries of a great hotel."

One day Mr. Pullman was traveling in one of his own sleepers, on his way to visit his branch shops in St. Louis. A woman passenger entered into conversation with him, not knowing who he was. Presently she was regaling him with a recital of the troubles she had in providing all the knives, forks, spoons, dishes, etc., that were necessary in maintaining a family hotel that she conducted in St. Louis.

"Madam," interrupted Mr. Pullman, "your woes as a hotel-keeper I appreciate, for I have some slight responsibility in that line myself. I am the principal owner of ten thousand dozen knives and as many forks.

"I keep on hand over two hundred thousand spoons. I use about one hundred and fifty thousand cups and saucers every day. And I have in service a hundred thousand table-cloths and over half a million napkins and about a million towels and—"

"Land sakes!" exclaimed the woman, looking at her fellow passenger in blank amazement, "you must run a pretty large boarding-house."

"Yes, ma'am, I do. It has a thousand dining-rooms and three thousand bedrooms, containing over thirty thousand beds. I employ some five thousand colored servants, and have about fifteen thousand white men on my pay-roll. Seventy-five million two hundred and fifty thou-

sand pieces of linen are laundered for me every year, and—"

"Say," interjected the woman, whose expression had turned from amazement to affright, "I don't believe you're a boarding-house keeper at all. I think you run some sort of an asylum."

Getting a Pass to the Plant.

I told this story to the Prime Minister of the Principality of Pullman. You'll learn who he is in just a minute.

When you are in their city, the Chicagoans will tell you that it is as much your duty to visit the Pullman shops as to go to the stock-yards. The first step you take, then, is to go to the big Pullman Building on the Lake Front and get a pass.

BEHELD THE CONDUCTOR AND PORTER SOMEWHAT MIXED UP

I went there, walked up to the president's office, and asked to see Mr. Robert T. Lincoln. The son of Abraham Lincoln was out of the city. So I was shown into the office of the vice-president, Mr. Charles S. Sweet.

Mr. Sweet knows everything about everything pertaining to a business that is as wide and as long as the continent itself. He is Prime Minister of the Principality of Pullman.

"Writing about George Pullman!" he exclaimed. "Why, I'm sure you can describe no scenes at our shops that will interest a public that cares only for results."

"But my story won't be confined to 'sights,'" I said. "There's the human side. I believe I can tell you an anecdote of Mr. Pullman that even you never heard."

And then I related the anecdote with which this article opens, the story of which illustrates Mr. Pullman's practise of keeping on the tip of his tongue an inventory of the properties of his "Ubiquitous Hotel Concern."

Even before I finished that tale Prime Minister Sweet indicated that he had heard enough. He pressed a button. A stenographer entered, note-book in hand. "Get a pass for one to the administration building at the works."

That's how I came to travel the fourteen miles out of Chicago to the city of Pullman, the capital of the Pullman Principality, and the greatest car-building town in the world, with a ticket of admission signed by Mr. Richmond Dean, the general manager.

My ticket was addressed to Mr. Thomas Dunbar, the manager at the works, who turned me over to a guide, after handing me a crimson card that "passed" me over the whole "making" plant.

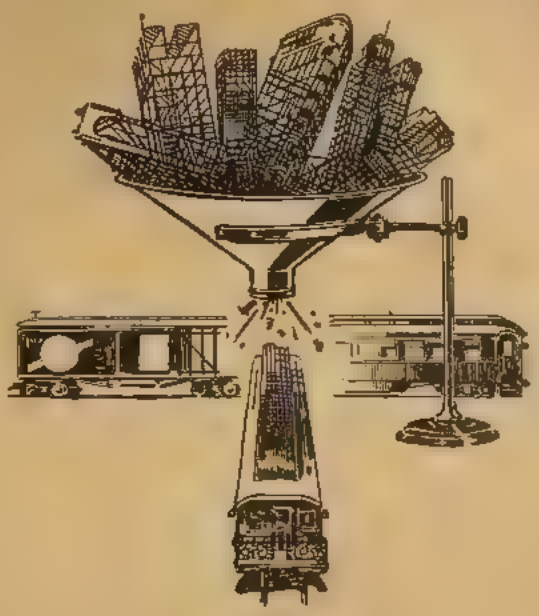
Before I had been a quarter of an hour at the shops I was treated to a curious experience. Sideways! Like a monstrous crab! That's the way the Pullman car traveled in which I was a passenger. Thus, sidewise, it rolled along the track for an eighth of a mile.

It was a private car, brand-new, nearly ready for delivery to one of the Vanderbilts. In no respect was it physically different from any other private car. The twelve wheels were in their usual places; the trucks were in their proper position.

Yet that forty-five-thousand dollar "flat on wheels" was navigated, as a sailor might say, "broadside-on." In that car, in company with a Pullman official, I lolled on a satin divan.

Through the windows on one side I looked straight to the front. Out of windows on the other side I looked plumb against the head end of the boiler of the locomotive that pushed us forward sideways a whole furlong.

That car made its extraordinary journey along a kind of alley between the great shops. In the shops there are some ten miles of track. On these tracks, any day, you can see seven thousand workmen building a hundred or more railroad cars. As each car nears completion it is either moved to another of the many different shops, or is taken out into the yard to be turned over to the "finishers."



ENOUGH TO BUILD SIX SKY-SCRAPERS IN NEW YORK CITY.

Well, our private car was being moved out into the yard. First, it was rolled out of the shop and onto a platform that traveled along a track more than seventy feet wide, down the alley between the giant buildings. The platform looked like a turn-table, only it didn't turn.

Sixty Miles of Hotels on Wheels.

It was pushed along sidewise, with our car as its load, till it reached a certain yard-track, where the car moved in its natural "head-on" way by being pulled off the platform by a switching-engine.

Such is one of the "sights" at the place where they build traveling hotels by the mile. On the rails of North America there are to-day over sixty miles of such hotels on wheels. In other words, there is a "fleet" of forty-five hundred Pullman sleepers, parlor-cars, and diners "on the road."

Last year alone the Pullman shops turned out over twelve miles of itinerant hotels, or about one thousand passenger-cars of all classes. And our private car that traveled sideways represented a paltry sixty feet of the fifteen miles of traveling bedrooms, dining-rooms, drawing-rooms, and "sitting-rooms" (coaches), that will be built during the present year at the capital city of the Principality of Pullman.

The capacity of the shops is one sleeper, two coaches, and fifty box cars a day. "We can, and pretty nearly do, turn out in a year over sixteen thousand cars of all kinds," said a Pullman worker. "Hitch all those cars of a single year in one train, and the front car would stand in New York and the rear car would be in Baltimore, making a train one hundred and eighty miles long."

The value of all Pullman and private cars in the country to-day is one hundred and twenty-five million dollars. That is more than one-half the total value of all the telegraph systems of the country, and a quarter of the value of all the mining products.

In the passenger-car shops the racket was so deafening that I could only pretend I heard what my guide was telling me. It was the noise of a thousand hammers and mallets on wood.

The hammerers were driving nails at the rate of about two thousand a minute, and in making the sides of cars they pounded thoroughly seasoned hardwood into place at the rate of a hundred planks a minute—planks taken from the two million dollars' worth of lumber that is carried in stock.

Amid the banging and the general din, however, my pilot managed at last to make me understand that in the Pullman shops sixty million feet of lumber were used last year. If delivered at one time, as we afterward figured, that yearly lumber supply would require a train fifty miles long, consisting of five thousand cars.

With that lumber you could build a board-walk, eight planks wide, the whole length of the Atlantic coast of the United States. Lay the walk one plank wide, and it would be twelve thousand miles long, running down the coasts of the three Americas from Labrador to some point near Patagonia.

Supplies and Materials.

When you think of all that lumber and all the wood-workers required to convert it into railroad cars, you accept as a matter of course the information that George Pullman's father was a carpenter, that George started life as a carpenter's apprentice, and that he afterward learned the trade of cabinet-maker.

A trifle of other materials, too, is used in the Pullman shops. In a year they consume one hundred and twenty-five thousand tons of iron, enough to build six sky-scrapers in New York City or Chicago. Delivered all at one time, that iron would arrive on a train sixty miles long, composed of six thousand cars.

There are also a few machines in those car-building sheds, fifteen hundred and some. They are operated by thirty stationary engines having a total of twelve thousand horse-power.

The biggest of the engines is the giant Corliss that made its début at the Centennial Exposition at Philadelphia thirty-one years ago. With it are connected nineteen and one-half miles of shafting and belting.

The coal used in keeping those thirty engines in action during one year, 60,000 tons, would warm at least six thousand ordinary houses for a whole winter.

The Wreck Test.

Queer "stunts," other than that of making cars run sideways, are performed at the shops. One day a year or so ago, on the Pullman Railroad that is operated in connection with the plant, there was a wreck—not one of your accidental affairs, but one deliberately planned and executed to order.

Down the tracks came a train consisting of a parlor-car and an engine. The engine was pushing the car and making directly for a lone sleeper, a new one, that stood on the same track. As the backing train neared the sleeper it gathered a speed of thirty miles an hour.

One could see that the engineer did not even try to avert a collision. Did he mean thus wantonly to wreck his own train? Did he intend maliciously to destroy railroad property worth a small fortune? Yes! That's exactly what he meant to do—if he could.

Crash, bang! went the flying train into the solitary sleeper. And when the Pullman workers looked the "wreck" over this is what they found: Tender of engine fit only for the scrap-heap; vestibules of parlor-car reduced to kindling and junk; sleeper absolutely intact, unhurt, unscathed.

What was all the fuss about? It was just a wreck test. Both cars were Pullman-made, but the parlor-car was the regulation wooden affair, while the sleeper was a type of car you've never seen—unless you have visited the Jamestown Exposition, where that car—the "Jamestown"—was placed on exhibition soon after the wreck test at Pullman.

The "wreck" took place a few days before I presented my pass at the Pullman works. "Where's that car now?" I asked, and learned that it stood at the Grand Central Station in Chicago. At that station I boarded the first sleeping-car of its kind on earth—an "all-steel" car.

First All-Steel Car.

It was designed by one who is to-day the proudest member of the general staff of the Pullman army, Max Schneider. On the inside of the car I looked in vain for wood. Its bones, so to speak, were all of steel.

Its walls were nine parts steel and one part asbestos. Its floor was two parts steel and one part concrete. Its roof was steel, but its inner ceiling was aluminum. And its window-frames were of brass.

Pour burning oil on that car, and you would damage only the carpets and upholstery. Try to wreck it while its wheels turn at the rate of thirty miles an hour, and, as I've shown, nothing doing happens—except to the other car or engine.

After leaving the shops, I walked around the town. Two or three of the twenty-five hundred householders invited me to step inside to inspect the model nests of brick that Mr. Pullman built "to help my employees to help themselves."

One man said he had occupied the same house for nearly a quarter of a century. Then I visited the Pullman Club, looked in at the theater, and stopped at the library,

where ten thousand volumes are at the free disposal of anybody.

This model city is now thirty-one years old. It covers thirty-five hundred acres, or about six square miles. Its shape and size resemble that of Central Park, in New York, two miles long and half a mile wide. You can ride for twelve hours over paved streets a hundred feet wide, stroll sixteen miles on side walks, and go seafaring on three miles of Calumet Lake.

The inhabitants of this very distinctive manufacturing and railroad town number fifteen thousand, a population equal to that of Ann Arbor, Michigan, twice that of Annapolis, Maryland, or three times that of Boise, Idaho.

To the workmen in Pull man alone the company has paid, since the town was founded, over seventy-five million dollars.

The seven thousand five hundred workers of the town comprise one-third of all Pullman employees in the country. That makes the grand total twenty-one thousand, with an annual pay-roll of thirteen million dollars.

One day Mr. Pullman was crossing the Arizona desert, on the Southern Pacific, in a car named Psychrus. At one of the water-tank stations he got out to stretch his legs, wandering a little way from the tank. When he returned he said to a porter:

"How far back is my car? It's the—ahem!—the Circus!"

"Oh, you mean the Pish-rush," cried the porter. "Second car back."

Another time he was traveling on a Union Pacific train, going west. The cars on that train were mostly of the "R" class—Rhamnenses, Rhodanus, Rhyndacus. Now, as Mr. Pullman passed through the train he chanced upon a Pullman conductor who was studying a Greek Testament.

"Putting your spare time to good use, I see," remarked Mr. Pullman.

"Yes, sir. I'm a theological student."

"Young man," Mr. Pullman said with impressive solemnity, "if you're a theological student, I'm astonished that you'd resort to prevarication in any form. For it's my belief that in studying that book you are merely mastering the nomenclature of the no-

BRAVELY HE ATTEMPTED TO OPEN A WINDOW.

ble profession the uniform of which adorns you at this moment."

In talking of private cars, the visiting railroaders at the Hotel Florence said that certain private-car owners have of late declared that the privacy thus attained does not offset the additional dangers incurred. Your private car is always at the rear end of a train.

When the train is long and is running at high speed, you are whirled around curves in a way that makes you feel like the end

FROM LABRADOR TO PATAGONIA.

boy in the game of snap-the-whip. Also, there has been in recent months an epidemic of rear-end collisions. For these two and sufficient reasons Mr. George Vanderbilt recently sold his private car, and now rides, as Mr. Pullman frequently did, in an ordinary sleeper.

One of my acquaintances at the hotel related a specific incident suggestive of other dangers of private-car travel. A Montana mine-owner, on his way East in his own car, reached St. Paul. There a switching-engine transferred his car from the road he came on to a Chicago road.

The Chicago train immediately pulled out. No notice of the "private" had been given to the conductor. Hence no rear lamps were put in position, nor were the steam and air-brake connections attended to.

On the bridge over the Mississippi the mine-owner suddenly found his car standing still. He was at dinner. Into the dining-room rushed the cook to announce that the car was standing on the track in the middle of the bridge and that the rest of the train had vanished.

The man from Montana sprang to the door and instantly realized his danger. The coupling had broken. A train coming from either direction would hurl his car into the river.

He jumped off and hurried back over the bridge, momentarily expecting to fall through the ties to a watery grave. He found a station, and the telegraph operator did the rest. Stations to the rear were notified to hold up trains, and a station ahead was wired to stop the Chicago train and send it back to pick up its lost car. But that Montana miner never afterward felt quite happy in his luxurious and exclusive traveling flat.

His Christian Name.

Tales are told by the dozen by the rank and file at the Arcade. One "Arcadian" said: "Here's one that isn't twenty-four hours old. It's about a Pullman porter, well known in this town, who got square with a passenger that incessantly and haughtily ordered and never tipped.

"'See here, George,' cried the passenger, 'bring me—'

"'That's me, sah! Ah'm George. But Ah didn't s'pose you knew me well enough to use mah Christian name. Gem'men calls me just "po-tah." Glad, sah, to count you as mah pussonal frien.'

"And now," the "Arcadian" said, "I ain't going to tell you George's other name, because if you printed his full name he'd get fired. Discipline in the United States army is child's play compared to what it is in the army of Pullman.

"And say, did you know that Mr. Pullman had a head shaped like a railroad car? Well, he did. Phrenologists called it his 'long head.' It just shows how a man's business can affect the outline of his cranium.

"Look at the 'old man's' hat that's been lying around the hotel yonder ever since the creator of this vast business was laid in his specially invented dynamite-proof grave beneath several tons of concrete and steel, and you'll see that I'm telling you gospel."

The rarest thing in the Pullman army is dishonesty. I refer principally to the porters, the men who are frequently tempted but who seldom fall. A man gets off a train early in the morning, leaving a plump pocketbook, or a valuable watch, under his pillow.

Temptations of a Porter.

His wife leaves her diamond-rings lying on the wash basin in their stateroom. That money, those jewels, are found by the porter, who hands them over to the conductor as he would do if the articles were an umbrella and a book.

After much questioning of members of the Pullman army at Pullman town, I at last heard of one porter who was sorely tempted and fell. He fell literally, too, with a dull thud.

The story of that porter's sudden backsliding is so exceptional in the annals of Pullman that I set it down here as a variation of the monotone of integrity.

It was a train on the Northwestern, bound from Omaha to Chicago. One of the passengers in the sleeper was a mining man from Goldfield, Nevada. In a satchel he carried forty thousand dollars' worth of

Goldfield municipal bonds which he intended to "peddle" in Chicago.

In a moment of confidence the Nevada man communicated his secret to the porter.

"That bag of mine," he said, "looks like it might hold socks and a collar. Well, it contains the price of about eighty thousand pairs of socks and of about a third of a million collars." And then he named the contents as "forty-one-thousand-dollar bonds."

Not many minutes later he looked for his bag and failed to see it. Just as his dismay began taking the more active form of wrath, he heard sounds of a scuffle. In the rear door of his car he beheld the Pullman conductor and the porter somewhat mixed up as to legs and arms.

He Saved the Bag.

As the man from Nevada rushed down the aisle with intent to ally himself with the conductor, his bag fell to the floor of the vestibule! He seized it, and simultaneously the porter vanished.

Did that porter fall off? Or did he jump off? Perhaps doubt on this point can be dispersed by the sheriff of a certain county in Iowa, providing he found the porter lying on the Northwestern right-of-way, as he expected.

When the report of this incident reached the town of Pullman the car-builders were dumfounded. A porter gone wrong? Incredible! It was only a practical joke—perpetrated by the mining man. His bag really contained only socks and a collar. Such was Pullman-town sentiment. The only part of the report that pleased the Pullmanites was a remark of the philosophic traveler who referred to "that willing but unlucky porter."

"Wonder if you ever heard of a Pullman conductor called 'Beehive' Brady?" said one of the "Arcadians." "No? Well, he ain't in the service now. Don't know what's become of him. But I recollect hearing him tell how he came to be known as 'Beehive' Brady.

Wouldn't Part with His Insects.

"He once had the Chicago-St. Paul run. At a way-station a man with a flowing white beard boarded one of Brady's sleepers. The old gent carried a wooden box about the size of the canary-bird cages you see in stores. When Brady collected the passenger's ticket he heard a peculiar buzzing sound coming from that box.

"'Passengers ain't allowed to carry nothin' alive in these cars,' he said.

"'These are harmless creatures,' the passenger replied. 'They're a rare species of insect. They're in a patent trap. Can't get out. A man of your superior intelligence, conductor, will appreciate my position and privileges when I tell you I'm an entomologist.'

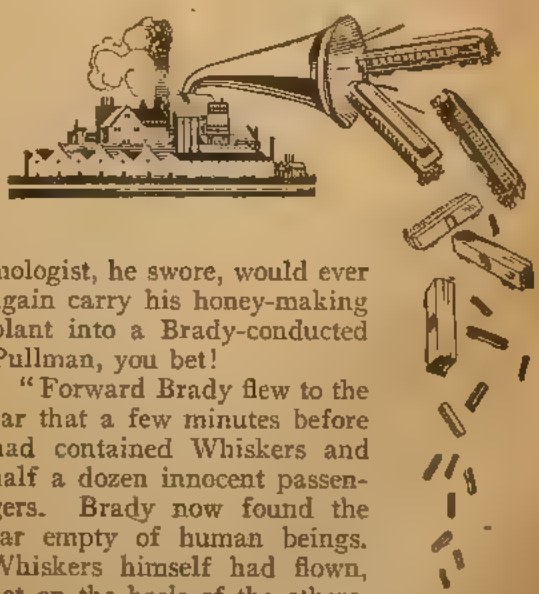
"That word put the quietus on Brady. He couldn't enforce rules on a man that called himself a thing like that. Perhaps entomologists were entitled to privileges he had never heard of. Anyway, he decided to leave Whiskers alone till the train-conductor could be consulted as to the rules for entomologists.

"Brady was about two cars farther back, still collecting tickets, when in dashed an old lady with horror written in her pallid face. 'Conductor!' she cried. 'It's simply disgraceful! I'll report you. That car I'm in is full of bees!'

"A great light flooded Brady's brain. At last he knew what an entomologist was—knew all about it without having to display his ignorance by asking the train-conductor. An entomologist was a dealer in honey.

"Harmless insects! Rare species! Brady was furious at the thought. No entomologist, he swore, would ever again carry his honey-making plant into a Brady-conducted Pullman, you bet!

"Forward Brady flew to the car that a few minutes before had contained Whiskers and half a dozen innocent passengers. Brady now found the car empty of human beings. Whiskers himself had flown, hot on the heels of the others. And so had the 'harmless insects.' They had managed to escape from their patent



1 SLEEPER, 2 COACHES, 50 BOX CARS DAILY.

hive, and the car was fairly alive with them.

"As Brady entered, he heard a noise like that of a hundred electric buzzers—and also he was stung on the nose. Yet he bravely attempted to open a window—only to be stung on the ear. Even in the hasty flight he then achieved (leaving the door open so that the enemy could escape), he was stung on the chin.

"In a towering rage and maddened by pain, he reached the smoking-car, where Whiskers had taken refuge.

"'What do you mean by bringing beehives into my cars?' howled Brady. 'Didn't I tell you that live things weren't permitted? Confound you! Why didn't you say you were the kind of entomologist that has beehives?'

"'Never you mind, conductor,' said Whiskers. 'I'm not, strictly speaking, an entomologist. It's true I dabble in the *genus entomophagous,* and am somewhat versed in entomotaxy. But my proclivities are chiefly apiarian, and that's how I came to invent that new beehive that I now see needs a little improvement as to means of egress. In short, conductor, I'm an apiarist.'

"'Oh, is that what you are?' murmured Brady as meekly as an immigrant traveler that doesn't understand English. 'Well, if that's what you are,' he added, 'why, then, of course, perhaps, I guess I ought to allow you the usual privileges.'"

Hard on the Railroads.

Still other soldiers of the Pullman army spoke of how proud Mr. Pullman was of Chicago, and especially of the part the railways were playing in the city's development. To a United States Senator from Illinois Mr. Pullman once said:

"Yes, sir, we have over a thousand trains a day running in and out of our city, with over a hundred and fifty thousand passengers. And the fact is the railways have made Chicago just what it is to-day."

"Goodness gracious!" cried the Senator. "What a horrible charge to bring against the railways!"

One car-builder told me that Chicago did not raise the man Pullman. "Pullman raised Chicago," he insisted.

It seems that in the days when the city was "lifted" bodily out of a marsh, Mr. Pullman was one of the first to secure a contract to move a block of buildings. He was then in his early manhood. His father had given him certain patented devices for raising buildings without disturbing street traffic and without injuring the structures.

George heard that men were wanted to "raise" Chicago. He called on owners of business property in the heart of the city, displayed his new appliances, and secured a contract to raise a hotel and "fill in."

His success was so complete that other contracts came to him, and by the time that a good part of the central district of Chicago stood on dry land (with the marsh smothered beneath the "fill in"), Pullman had cleared about twenty thousand dollars.

And that was the way young Pullman got the money to begin the construction of the first comfortable sleeping car in the world. He paid five thousand dollars for a patent or two, and spent the remainder of his little capital in building, in 1865, the now famous "Pioneer." That car cost altogether eighteen thousand dollars, or over four times as much as any "alleged" sleeping-car then in existence.

Pioneer Sleeping-Car.

Even as early as 1836 an extremely primitive sleeping-car had been put in operation between Chambersburg and Harrisburg for the accommodation of travelers to the Pennsylvania State capital. The berths were remodeled from those of steamboats.

By 1858, the New York Central had "sleepers" with berths three deep on each side, and with practically no bedclothes or pillows. The mattresses were stored at the end of the car, and were dragged along the none too clean floor to the berths as wanted.

The car was lighted by candles or sperm-oil lamps. Those who wanted to wash did so in a tin basin.

In 1859 Mr. Pullman made a night journey from Buffalo to Westfield over the New York Central.

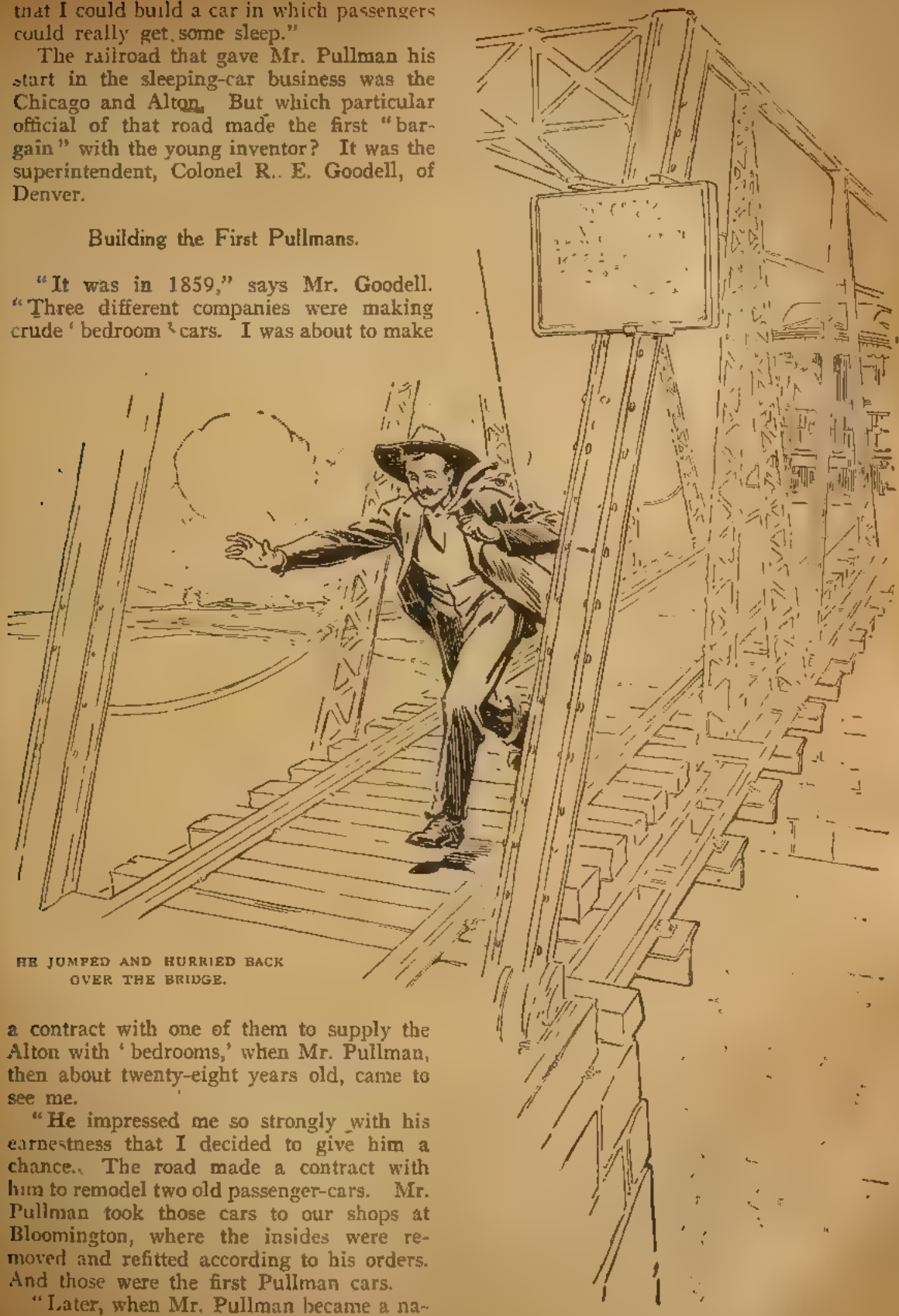
"It was a sixty-mile ride," said Mr. Pullman afterward, "and I occupied a bunk in one of the so-called sleeping-cars. The rattling and bumping and jolting kept me awake the whole way. I put the time to good use, however, by revolving in my mind plans by which I could build a car with a dormitory, which would provide more comfort than the car I was riding in. By the time I reached Westfield I was convinced

that I could build a car in which passengers could really get some sleep."

The railroad that gave Mr. Pullman his start in the sleeping-car business was the Chicago and Alton. But which particular official of that road made the first "bargain" with the young inventor? It was the superintendent, Colonel R. E. Goodell, of Denver.

Building the First Pullmans.

"It was in 1859," says Mr. Goodell. "Three different companies were making crude 'bedroom' cars. I was about to make



HE JUMPED AND HURRIED BACK OVER THE BRIDGE.

a contract with one of them to supply the Alton with 'bedrooms,' when Mr. Pullman, then about twenty-eight years old, came to see me.

"He impressed me so strongly with his earnestness that I decided to give him a chance. The road made a contract with him to remodel two old passenger-cars. Mr. Pullman took those cars to our shops at Bloomington, where the insides were removed and refitted according to his orders. And those were the first Pullman cars.

"Later, when Mr. Pullman became a na-

tional character and a millionaire, I saw him frequently. Much of his business was done while traveling. Presidents and superintendents of roads would come to his car and in half an hour's conversation arrange the details of business for perhaps a whole year. He never grew enthusiastic over anything, and I never saw him excited."

Colonel Goodell always carried a pass good on every car belonging to the Pullman company, either in America or Europe.

"I have helped many men," he once said, "and George Pullman was one of the few who remembered. This pass of mine was mailed every year so that it came to me on New Year's morning."

It was after Mr. Pullman's experiments on the Alton that he built the "Pioneer."

"He rented a workshop and employed skilled mechanics," says a Pullman official, "and though Mr. Pullman was himself without mechanical training, he personally directed the work of others in all the minute details of putting his ideas into material form in the 'Pioneer' and in the still more expensive cars that immediately followed."

Would Wear Their Boots to Bed.

"But such extravagance in a mere railroad car is ridiculous," protested President Joy, of the Michigan Central, addressing Mr. Pullman. "People will climb in between the sheets of your sleeping-car with their boots on. And they will view the carpets and upholstery in the light of a convenient cuspidor."

"Not at all," replied the optimistic inventor. "The same instinct which makes people conform in their habits to elegant surroundings in a first-class hotel will make them conform to the appointments of my hotel on wheels."

The result of this conversation was that President Joy said: "Well, we'll run a few of your twenty-four-thousand-dollar cars on the Michigan Central just for the experiment. But I'm sure the public will never pay two dollars for a bunk."

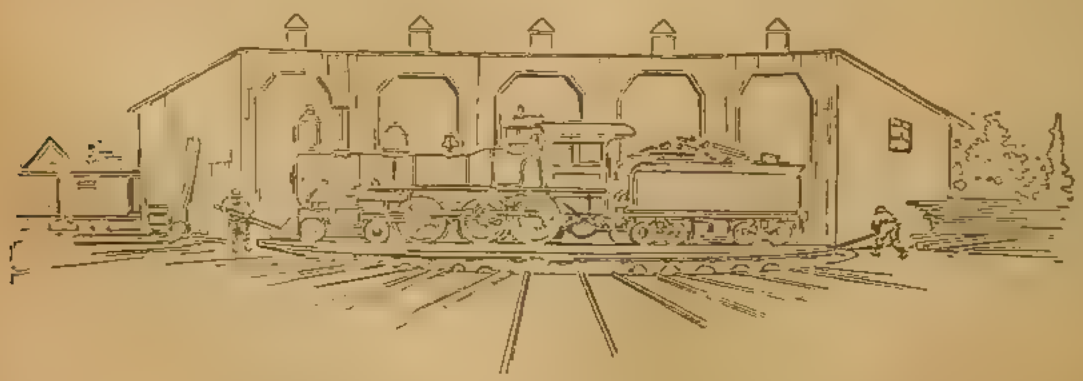
To the Florence Hotel—named for Mr. Pullman's daughter—come many railroad officers who once had personal dealings with Mr. Pullman. They are unanimous in declaring that the famous car-builder had the infinite capacity for details that spells genius. His talent for organization is apparent to-day to even the casual visitor to the works, though the genius of the establishment died ten years ago.

Keeping Track of the Cars.

In the administration building, for instance, I found that they can turn to the record of any given car, no matter in what part of North America it may be running at the time, and tell to a penny what it cost originally, how much it is earning per month or per day, what its expenses are for operation and repairs, how many passengers it has carried altogether since it was built, how many passengers occupied it at any particular time, and the names of the conductor and porter in charge of it on any specified day or run. In short, in the home office, one can find the whole life history of any Pullman car.

After my visit to the noisy passenger-car shops, already described, I went through the wood machine-shops, the cabinet-shops, the marquetry department, the brass foundry—and everywhere there was the same bedlam. Pandemonium reigned throughout that plant as on a battle-field.

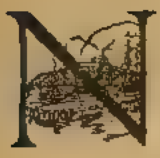
Men everywhere were driving nails in battalions. The sound effect was of volley upon volley of musketry. Loads of lumber slid from cars to ground with a booming sound, like cannon to right and left in action.



"J. HARRY JONES, AUDITOR."

BY CHESTER PORTER BISSELL.

He Sent the Chills Down Adams's Back and then Adams Returned the Compliment.



NO. 7 had just gone. The few passengers who had alighted shambled along the board-walk to the business part of the town. Sam Adams, the station-agent, pushed the truck back into the freight-room, checked the packages with the way-bills, and, finding they were O.K., he closed the freight-room door with a bang. Picking up three or four sacks of mail, he trudged toward the post-office.

Sam had been agent at Capeville, for the C. H. and W., for fifteen years. It seemed to him that he had worked at the red depot all his life. Other men had been promoted and went to better paying positions, leaving Sam plodding in the same rut.

Sam had married Mary Grisham, the daughter of a prosperous farmer, about fifteen years before. Sam was then beginning his career as a telegraph operator, and Mary saw no reason why he should not climb the ladder, rung by rung, until he reached the pinnacle—the presidency of the road.

Alas! In spite of Sam's faithful service and ability, he remained at Capeville for fifteen years, and Mary accepted his failure with fortitude, although she could not understand why other men went ahead of Sam.

As she struggled to keep up the house, and feed, clothe, and send six growing children to school on Sam's fifty dollars a month, tears of disappointment came to her eyes many times.

As Sam walked to the post-office with the mail he seemed to be in a trance. At any rate, he was in an unhappy frame of mind. He had long contemplated a lay-off. Now that their home was out of debt, he could afford to take a short breathing spell.

Only Mary and he knew the personal sacrifices and grinding economies that had enabled them to secure a home. He would have been put to shame if it would have been proclaimed to the world how far he had learned to make a nickel go, and how many darns and stitches Mary took to make the little stockings and pinafores hang together.

Sam asked himself if he could afford a vacation. To do nothing—absolutely nothing for a few weeks! What a novelty!

But something seemed to step in and say, "No; not yet."

One day a car arrived containing the outfit of a number of immigrants. Its destination had been changed while in transit. Sam collected the freight charges as originally billed, not noticing the changed heading of the way-bill; therefore, he did not collect the full amount from the consignee. Furthermore, he never could—the consignee was dead.

Sam, in due time, received a letter from the auditing department, instructing him to "take special debit for $31, account undercharge on car of emigrant outfit, account Duluth way-bill 18756."

The writer of the letter was somewhat caustic. He asked Sam if he ever revised his way-bills, and called his attention to "amendment 18-B to supplement 49-G to tariff 1973-I.C.C., also in connection with C. H. and W.'s proportion-sheet 62-F, paragraph 4, for the correct rate."

When Sam read this letter he was real mad. It meant another month or more before he could take his vacation.

He entered the post-office and threw the mail on the floor with a sigh of relief. Brushing the dirt from his worn clothing,

he peeped into his box, and took out a postal-card. It was a Western Union Telegraph Company's error-card amounting to ninety-three cents.

"Great Scott!" Sam ejaculated. "Is there no end to this paying money out? The company wants a fellow to work for next to nothing, then pay it all back in what they call errors. Hang the railroad company!"

With bitterness in his heart, Sam returned to the depot.

He entered the waiting-room, drew the keys from his pocket, and was preparing to unlock the office-door when he noticed a well-dressed man at the ticket window. Sam noticed particularly that the stranger carried an expensive gripsack. As Sam entered the office, the stranger picked up his grip and followed him in.

"I suppose you are the express-agent here?" he asked politely.

"Yes, sir; what can I do for you?" answered Sam, eying the stranger closely. He was about thirty-five years of age, well built, clean cut, and polished in manner, but he had a queer, unblinking stare.

"I am here to check your express accounts. My name is Jones—J. Harry Jones. Here is my authority." He handed Sam a letter.

Sam had always held traveling auditors in a sort of fear. His accounts were always in tip-top shape, and frequently the auditors had commended his neat bookkeeping and his small, clear-cut figures in the impression books.

But this man Jones! There could be no doubt as to the authenticity of the letter. It was written on the superintendent's letter head, and carried his signature. Sam had seen this signature so many times.

In a bewildered manner, Sam read the instructions giving all agents orders to allow J. Harry Jones to audit the station accounts.

The typewritten words seemed to run together in a blur. A vague feeling stole over him that, for some unknown reason, his bonding company might have terminated his bond—that this man had come to check him out!

"Why, Mr. Patterson, the route-agent, was here last week," said Sam nervously.

"That's all right. Don't feel uneasy in the least," replied the auditor reassuringly.

Sam felt as if a weight had been removed from his heart. He put out his hand, and the auditor shook it warmly. Sam appeared to be very happy.

"You see," continued the auditor, "Route-Agent Patterson misplaced the report on your check, and was not able to locate it. As he is very busy, I was sent here to get another check." His voice had a soothing effect.

"Now, the first thing is your cash," he added, opening his grip. Sam went to the "cast-iron" safe, took out a roll of bills, which he handed to the auditor.

"I intended to remit yesterday, but did not get to it. I am afraid I have more money on hand than is allowed by the rules," said Sam, growing slightly nervous again.

"That's all right. Agents cannot always live up to the stringent rules the company makes," the auditor answered, smiling.

Sam stared in astonishment. Here was an official who was not harping on the rules. On the contrary, he was taking sides with Sam. A feeling of good fellowship began to steal over him.

"Do you wish me to remit?" asked Sam, getting a remittance slip and a money envelope from the case.

"Oh, no; I will just take it along with me. Here is your receipt. Two hundred and fifty-four dollars. Now, get me your express books," said the auditor with a gleam of satisfaction as he placed the roll of bills in the grip.

Sam got his "delivery," "forwarding," the "old hoss" book, and the impression book that contained copies of his monthly reports, and laid them before the auditor. In a few minutes he was totally absorbed in checking abstracts, statements, and money-order reports.

Sam went to the telegraph table, in the window, sat down on the inverted end of the nail keg, which served him as a waste basket, and gave the despatcher the "OS" of No. 7.

As he sat by the telegraph instrument he thought of the mail he received on No. 7. He drew the express way-bills and three or four letters from his coat-pocket. He opened one. It was a requisition for two gallons of coal oil and a half-dozen lamp-wicks returned from the superintendent's office, with a note on it asking Sam what he had done with the oil and wicks which had been sent him a month previous. Sam laughed, and laid a track-spike on the requisition.

"It's that little pinheaded chief clerk that asks such idiotic questions," he said to himself.

He picked up another envelope. It contained a bunch of tariffs from the traffic bureau. Vivid recollections of the thirty-one dollars came to him as he glanced at them. With a feeling of disgust he threw them aside.

Sam opened another letter. This one was a circular letter from the express company. "One Thousand Dollars Reward" was the heading. It gave in detail the Bertillon measurements and the description of a noted international swindler, who had served several terms in jail and had many aliases.

He was about to throw it to one side. Agents generally give such things only passing interest. But—he chanced to look on the opposite side of the circular.

He paled and his body seemed to become suddenly paralyzed. Little chills began to run up and down his back. His hand trembled with excitement.

Before him was a photographic likeness of the crook wanted. It was an excellent picture of the auditor sitting behind him.

Sam quickly regained his composure and began to think just what action to take. Here was a serious problem to be solved quickly and by himself. Then, also, two hundred and fifty-four dollars were involved for which he would be held responsible. The very thought of losing such an amount made him shudder.

There was another risk to run. He might be mistaken. Such coincidences had happened. He pulled out his watch. The picture of Mary on the inside of the case looked at Sam with a soft, tender gaze. A white flame of passion shot through him, charging his body with courage! He would arrest this man! If he made a mistake, he would take the consequences!

He would take the risk.

The auditor worked on unconcernedly. He was so like an "old head" that Sam was uneasy. Now and then he would ask Sam a question that showed he was "dead next to the job." This only made the situation more perplexing.

Twenty miles from Capeville was the town of Cooper—the division for the railroad company. The office of superintendent of the express company was located there.

Sam heard the "GO" wire working with Cooper. He knew the operator at Cooper—old "KN." Sam opened the key and got busy.

"Say, 'KN,' could you get off about fifteen minutes? I want you to step over to Moore's office—the express superintendent," Sam sent over the wire.

"I guess so. What is it you want, old man?" responded "KN."

Sam sent a hurried statement to be forwarded to the superintendent—that the picture on the circular and the face of the auditor were alike as two peas.

"Ask them if they sent any one here to check this office, and let me know what to do quick," continued Sam.

His fingers trembled on the key as a flash came to him that the auditor might be an operator.

"You stay right there a minute, old man. I will phone and let you know," said "KN," leaving his key open.

If the auditor was an operator he never let on; he was still deeply absorbed in his work.

"When does the next train go east?" asked the auditor.

"In just two hours. One goes west in about an hour," Sam answered without turning his head.

"I will take the one going east," added the auditor.

The auditor would not take the east-bound train if Sam could prevent him. The instrument called Sam sharply.

"Say, old man, there is something doing! You have stirred up a hornet's nest! The superintendent is here, and says for you to watch this man and he will be down, with two officers, on No. 5, in about an hour," said "KN."

After answering a volley of questions, Sam closed his key. The operator at "GO" resumed business with Cooper, and Sam, in an unconcerned manner, turned around and walked into the freight-room.

As he looked through the freight-room door he saw the sheriff going by. Sam hailed him with more than customary fervor.

In another minute the sheriff knew the situation. Sam showed him the photograph on the circular, and told him that the officers were coming on No. 5.

"There is a thousand dollars reward, Sam. I might as well get that as the Pinkertons. Let's arrest him now," said the sheriff.

There was only one thing on Sam's mind the two hundred and fifty four dollars

he might lose if the auditor got away. Sam was agreeable to nabbing him at once.

"All right, I am game," replied Sam, putting the circular in his pocket.

"Return to your office and I will be in soon and ask for something. Leave the door open and keep cool," said the sheriff.

Sam returned to his office. The auditor had just finished the books. He threw them in a pile on the table, leaned back in his chair, lit a cigar and gave a long sigh of relief, and placed his feet on the books.

"Well, I am through. Everything is O.K.," he said, drawing long puffs and closing his eyes.

"Thanks," replied Sam. His anger began to get the best of him as he thought of the cool manner in which this man was trying to dupe him. Then his heart jumped. The sheriff was coming through the waiting-room into the office.

"Hallo, Sam! See if you have an express package for me?" asked the sheriff, casting a side glance at the auditor.

"I'll see," replied Sam, going to the table where the auditor sat.

"I will have to trouble you for my delivery-book," Sam said to the man.

"Sure," replied the auditor.

As he leaned back and lifted his legs from the books, Sam grabbed both of them and turned him over backward, smashing the chair and overturning the table.

Sam fell on top of the auditor. A pistol-shot rang through the office just as No. 5 whistled for Capeville. Sam managed to knock the revolver from the auditor's hand just as he was going to fire the second time.

Then a desperate hand-to-hand scuffle ensued, but the combined efforts of Sam and the sheriff rendered the auditor helpless. The blood trickled from Sam's cheek and he began to feel somewhat faint. No. 5 rolled in with the superintendent and two detectives.

"Got him, have you?" asked the superintendent as he scrutinized the auditor's face. "That's him! Go through him and see if he has any more shootin'-irons."

A pair of handcuffs were snapped on him.

"What's the meaning of this?" he demanded, choking with rage.

"This is the meaning," replied Sam, showing him his own picture on the circular.

J. Harry Jones resolved himself into a deep study.

The next morning Sam stopped to read the following letter which he had received on No. 7, from the express company:

MR. SAMUEL ADAMS,

DEAR SIR: I find that J. Harry Jones, the fake auditor, has swindled nearly every agent on my division, with his photo right in front of them. I have communicated with the general manager, and he authorizes me to pay you the reward of one thousand-dollars. Enclosed find draft covering same. Acknowledge receipt.

A. H. MOORE, Superintendent.

With a pale face Sam gazed at the draft. Then he thought of his bright, smiling Mary with a feeling of joy. The sudden burst of prosperity seemed more than he could stand.

Sam put the draft in his pocket and, jumping to his feet, let loose a few blood-curdling war-whoops. He picked up the chair that had been shattered in the scrimmage with J. Harry Jones and hurled it across the office. He threw the coal-hod through the ticket-window, followed closely by the fire-shovel. He played foot-ball with his waste-basket—the nail-keg—and finally broke into a whirling dance.

Sam Adams, who had maintained the dignity of the C., H. and W. Railroad Company at Capeville for the past fifteen years, was celebrating.

"Hey, Sam, what on earth are you doing? Why don't you bring that mail to the post-office? People have been waiting for an hour! If I had not known you for the past twenty years, I would swear you was drunk!" cried the postmaster through the ticket-window.

"By gosh! I clear forgot that mail!" answered Sam as he grabbed the sacks and fairly flew up the board-walk to the post-office door.

And then he ran home to tell Mary.

A cold boiler will never burst—neither will it haul freight. Let enough enthusiasm into your life to make steam.

—Pleadings of the Piston Block.

THE THOUSAND-MILE TICKET.

BY DAN DUANE.

Author of "In the Hornet's Nest."

Fulward, of the Snowball Trust Company, Develops a Scheme That Gets Him in Bad.

CHAPTER I.

The Sum of $101,298.

ONE afternoon, at about ten minutes past the hour of five, a well-dressed man, aged forty-five, his steel-gray hair, sharply cut features and piercing brown eyes denoting the clever business expert, walked briskly down Broadway, New York, in the direction of the Snowball Trust Company.

That is not the correct name of the financial institution toward which the steps of Mr. Oxenham Fulward were directed, but as this narrative is based more or less on things that have made history, the author begs, for obvious reasons, that the real names of the people and places and things connected with it be sufficiently changed to preclude the possibility of embarrassment.

The story, however, is just as it was told to me by several of the parties connected with the remarkable affair.

Mr. Oxenham Fulward was walking in the direction of the Snowball Trust Company. He was the assistant cashier of that company. He had left his offices in the ground floor of the imposing sky-scraper which it occupied, at precisely three o'clock.

At that time, the officers usually took their departure, for the daily routine of the bank official begins at ten in the morning and ends at three in the afternoon, although the clerks and their superiors are obliged to stay until five in order that the business of the day may be checked up and recorded.

Fulward was timing himself to arrive at the offices of the Snowball at fifteen minutes after five. By that time, the clerks who were not permitted to leave their desks until five sharp, would have put on their hats and coats and become part of the great stream of toiling humanity which at that hour files homeward through the cañons that lead from the financial district of the metropolis to the entrances of the Elevated and Subway trains, and the concourse of Brooklyn Bridge.

Fulward had a key that unlocked the front door. This he deemed necessary, for his visits to the bank after hours were of more or less frequency. Patrick Carr, the worthy citizen who guarded the place when it was closed, to give the alarm should thieves break in and steal, was absolutely unconcerned regarding the unusual visit of so prominent an officer of the concern.

When Fulward entered and nodded cheerfully to the watchman who, with a bunch of evening papers and an easy chair, was preparing to make himself comfortable for the night, Patrick merely returned the salutation and went his way.

"Them bankers do not have so easy a time as one would think," said Patrick to himself as the assistant cashier entered his private office. "Mr. Fulward is obliged to come back here most every night and work until 'tis very late. Thank Heaven, I can take it easy."

Patrick was entitled to the promptings of his soliloquy—but Mr. Fulward did not have to return to the office for any such reason. He returned because it was to his particular advantage to do so.

In a shorter and uglier phrase, he returned to doctor his books.

Mr. Fulward, for some five years or more, had been systematically robbing the Snowball Trust Company.

His peculations had now run up to a sum that was slightly over one hundred thousand dollars. His system was as old as the eternal hills. Men had tried to beat it before and had gone down to ruin.

Fulward began to rob when he read of an apprehended cashier who had kept this particular scheme in successful operation for ten years. That was the first tip that he had that bank robbery was so very easy, and he resolved to put it to the test. His first haul was a thousand dollars. It came so easy that he took another thousand and then another and still another. Finally it had become a habit.

The ancient scheme was to intercept the collections for the day, take whatever sum he needed and alter the collection-clerk's sheet.

The next morning, the bookkeeper who entered on his journal the collections of the preceding day was none the wiser. As Fulward had direct charge of this part of the company's business, it was easy for him to operate and conceal his peculations.

They now covered a period of five years. During that time, he had read of other cashiers who had gone down to disgrace through similar methods. He had read of suicides and families made miserable, of institutions being wrecked and the wreckers sent to jail, of wives who suffered the tortures of degradation through their miscreant husbands, of little children who knew what it meant to have the fingers of their playmates pointed at them in derision, and to hear the ignominious curse, "His papa is a thief."

To all the newspaper reports, to all other records of unfortunates, Fulward simply smiled and said, "Fool! He didn't know how to play the game."

But on this particular night, Fulward came to the conclusion that he didn't know how to play the game either. Sitting at his desk, he took a little red-covered pocketbook fom the top drawer, reached for pad and pencil, and began to figure.

With the care and accuracy of a trained business man, he had kept account of every sum that had come to him through his medium of dishonesty. Not only was the sum recorded, but the date on which it was taken as well.

One by one, Fulward jotted on the pad each item recorded in the red-covered book. Then with the swiftness of an adding machine he added the sum. It read, $101,298.

Fulward leaned back astounded. "God knows I can never pay it back," he said.

It stared at him with the eyes of a demon. $101,298! It was awful. It bit straight into his conscience. It seemed to cling to him with the claws of a starving wolf.

For the first time in five years, Mr. Oxenham Fulward felt a cold and beady sweat on his brow. It is the sweat that comes when fear enters the heart.

Fulward didn't like it. It seemed to make him afraid of himself. He had never been that!—no, in all the years of his dishonesty, he had never lost his nerve or his belief that he could "make good" to the institution when the time came.

Now the thing was rising before him like an insuperable barrier.

Fulward brushed the cold and beady sweat from his brow and began to think. Three things were quick in coming to him.

First: He had to stop stealing then and there. The matter had been going on long enough. He would turn over a new leaf.

Second: He would make good the amount at once.

Third: How?

The third was a stickler. It dissolved the other two as the sun dissolves the darkness.

Perhaps the best plan was to make a good haul and take a flurry in the street. He could put his hands on some $25,000 of the trust company's money inside of a week, for some unusually large collections were coming in from the Western banks.

He would watch the market closely, he knew where he could get a tip or two that would be followed by a sudden rise—and all would be well. Oh, it was easy!

Then, the whole thing might be blamed on another man! There was Bezon, the head collection clerk, a silent, wan faced, plodding young man. His record was good, he had been bonded by the surety company because an influential friend had vouched for him; he had to support a widowed mother and all that—but sentiment could have no place when the getting of a hundred thousand dollars was the issue at stake.

Of course, he could not accuse Bezon outright. Bezon was perfectly honest and could prove it. Bezon would have to be found dead in the bank and, naturally, the books would be examined and the shortage

discovered. And Fulward would rise in his might with horror-stricken countenance and say, "How terrible! Why can't young men respect and honor the trust that is placed in them!"

Mr. Fulward had an imaginative mind.

There was yet another way out of it. With peculiar force, it struck Fulward on the solar-plexus of his thinking apparatus and he almost jumped with joy. That final way was the purloining of the Thousand-Mile Ticket.

The Thousand-Mile Ticket was an heirloom. As its name indicates, it was a common form of transportation issued by a railroad company. At its face value, such a ticket would be worth a paltry twenty dollars, but even if the dictates of the law placed this particular document at such a valuation, Mr. J. Erasmus Low would not have taken ten thousand times that amount for it—no, not in cold cash!

CHAPTER II.

Erasmus and the Ticket.

J. ERASMUS LOW was a millionaire many times over. Singular as it may seem, the Thousand-Mile Ticket had been instrumental in making him such.

Many years before he became a financial power in the land, before he ever thought that he would be rich enough to give millions to research work, millions to endow public institutions, millions to colleges, and millions to wipe out consumption, the Thousand-Mile Ticket played a most important part in his life.

The "J" in his name stood for John. In the early days when he was plain John Low and rather disturbed because his parents had divided so simple and noble a cognomen with the New England appellation of a departed uncle, he had saved the life of a man, by name Thomas Enger.

The horse which Enger was driving became unmanageable, and young Low, a tow-headed lad in a country village, had thrown himself bravely in the horse's path, grabbed the infuriated animal's bridle, and brought it to a halt.

Enger thanked the boy. Being a calculating man, he gave John fifty cents and told him that he would remember him some day.

That day came when J. Easmus Low was about twenty-five years old. Enger had found it necessary to take a trip to New York. With his customary method of economy, he purchased, at the ticket-window of the little depot, the now famous Thousand-Mile Ticket. As the train was pulling out, the unexpected happened.

It collided with a fast freight. The wreck was a bad one. Enger was carried to the baggage-room in a bad way.

A doctor told him that his hours were numbered. He called for pen and ink, took the Thousand-Mile Ticket from his pocket, and on the back of the long array of perforated coupons he wrote his will.

He disposed of various parcels of property with a shaky hand, remembered several old toilers who worked about his farm, cut off an unworthy son with a penny, and then, mustering his final courage, made J. Erasmus Low a benefactor to the extent of ten thousand dollars. "Because," as the dying man wrote, "this brave boy, with remarkable heroism, saved my life in a runaway at the risk of his own."

That night, old Tom Enger was gathered unto his fathers. Seven days later, J. Erasmus Low received a check for the amount of the bequest.

Erasmus didn't dash madly to the city as other boys, who come suddenly into a fortune, might have done. Erasmus, fortunately, was born with the money-making germ well planted in his hearty system. He knew from that inborn trait that one dollar if properly used will make another, and he accepted as his guiding-star the well-founded Hebraic doctrine that no man should use money for his pleasure until he has a comfortable nest-egg pickling in the brine of gilt-edge investments.

Erasmus came to New York. He started a loan business in a small way. He loaned on gilt-edge securities and first mortgages, and, if the truth be told, he never failed to charge a little more than the legal interest whenever he thought that the borrower needed the money badly.

He was quick to make his collections, quicker to foreclose when the borrower failed to come to time, and his call loans were the bogy of those who held them. Sentiment had no place in the business notions of young Erasmus. He hated nothing more than the man who came to him and begged an extra day or two in order to raise some money.

Before many months had passed, the original fortune of J. Erasmus Low had

reached twenty-five thousand dollars. Then it crept up to the fifty-thousand mark, and soon it was recorded at double that amount.

As time sped on, it grew and grew, and by the time the tow-headed New England boy had reached the mellow forties he was the biggest man in the street; his name was a household word; the picture of his sharp-featured face was seen everywhere; fond mothers and jealous fathers pointed to him with pride, and told their sons that his was the life to emulate, that being President of the United States was nothing to being a J. Erasmus Low.

When he was well settled in life, with a wife and family, several homes, motor-cars, and a yacht, Erasmus began the establishment of a private museum. In a large room of his Fifth Avenue mansion he gathered the treasures of many lands, as well as treasures that marked various mile-posts in his interesting career. Although these latter were of a personal nature, they were, nevertheless, as valuable to him as the real and fake art objects of the old world for which his money went so readily, and among them, prided above all else, was the Thousand Mile Ticket.

Because he was rich and powerful, because his word was better than his bond, because he had done much for the little town of his birth, the courts had set aside all precedent and permitted him to take the queerly made will into his own keeping.

He had promised that it would be more safe in his private museum than in the safe of the county court; that so long as life was vouchsafed to him, he would guard it with personal care.

The newspapers at the time made much of the incident. They were given to recording, beyond the limit of veracity, every move that the millionaire made; but their display attending the transfer of the Thousand-Mile Ticket was of such exceptional journalistic sensationalism that the ticket became known from one end of the land to the other.

The preying brotherhood of night marauders at once jotted all the foregoing on their minds. One day, despite bolts and bars, the famous book of transportation showed up missing. Of course it was stolen only for the reward. That was soon announced. It was of goodly proportions, and the book, without so much as a faded letter, was returned to its rightful owner and no questions were asked.

J. Erasmus Low then placed it in a special estuary of beaten gold, in the very center of his museum, and for many months a squad of reserves whiled away the night hours and cursed the bally thing that kept them on such tiresome duty.

Then, again, while its owner was motoring through Switzerland, it disappeared. J. Erasmus cabled to America volumes of instructions, and again offered a reward that meant a princely fortune to the lucky thief or thieves. As before, it was returned to its gold case in the Low museum, and no questions asked.

Up to the time of this narrative no one had the courage to disturb it until Oxenham Fulward, sitting in his private office in the Snowball Trust Company, racking his brain for the quickest way to raise $101,298 to cover his shortage, hit upon the theft of it as a particularly bright idea.

So many months, aye, years, had elapsed since its second disappearance that it had escaped the popular mind as a topic of conversation. If he could get his hands on it, the return would be a quick one. No doubt Mr. Low could be made to pay as much as several hundred thousand dollars if the man with the precious will in his possession held out long enough.

CHAPTER III.

From the Iron Gate.

OXENHAM FULWARD sized up his own precarious situation. There was no cause for immediate danger. The company was in good condition; it had the respect of a list of large depositors; unused thousands rested in its vaults, earning the established three per cent a year which has caused so much dissension between the commercial banks and the trust companies. He was regarded as a first-class man. No one doubted his integrity or business methods. In short, he could let the matter stand for a week or two—meantime he could take some action.

The more he thought of it, the more the theft of the Thousand-Mile Ticket loomed up as a possibility. He seemed to like the idea the more he turned it over in his mind. He would work with the utmost caution, lay his plans with care and precision, get everything arranged so there would be no hitch—in fact, he would do it up brown.

His first plan was to look over the Low

mansion This gabled and monolithed domicile stood in the center of the mile of millionaires' homes that bordered the east side of Central Park on the most aristocratic avenue in all the world.

"There is no time like the present," quoth Fulward to himself, and he tore up the sheet of paper on which he had been figuring, recorded "$101,298" in a corner of the red-covered book, returned this chronicle of his crime to its resting-place, and started for the street.

"Shall I call you a cab, sir?" said the faithful Patrick, having devoured the political sensations of the evening sheets.

"No, thank you, Carr," replied the banker. "After a hard day's work, a walk along the streets will be more refreshing. Good night."

Once outside, Fulward hurried up town to his club. While Patrick was musing on the hard life of the overworked banker, deprived of exercise by continuous application to business, and seeking fresh air in the highways, the object of his thoughts was being whirled along in the Subway to that part of the city where the theaters and gay hotels cover the area that is commonly known as the Tenderloin.

He went to his club, ate a hurried dinner, donned a long coat and a gray soft hat, and made his way up Fifth Avenue. The night was cool and inviting, and Fulward's long perfecto never tasted quite so good. He seemed to have a certain spring to his step that pleased him greatly. He was rather gay and light-hearted, rather jaunty and debonair.

After a walk of some fifteen minutes, Fulward reached the Low mansion. He stood in the shade of a tree that jutted over the Central Park fence. It finally dawned on him that he had done a foolish thing, for policemen, no doubt, were lurking in the shadows taking mental photographs of all who leered suspiciously at the house.

It came to him again and again that he was foolish. What could he discover, how could he help himself by simply staring at that massive architectural monstrosity of steel and stone?

He could have secured a description of the place in any New York newspaper, as columns were devoted to the minutest details of its construction at the time of its completion.

He looked cautiously about him. There were no officers in sight. Perhaps the guard of reserves had been ordered to a more pleasant task. He turned. A bluecoat was coming down the avenue. Fulward started in his direction with the casual air of a man out for an evening stroll. The officer passed him by with silent tread. Fulward surmised that he was the regular man on patrol, walked on for a block or so, turned, crossed the street, and walked back until he was directly in front of the palace.

"The museum is on the side facing the cross street," he said as he strolled thither. Placing his hands behind his back, and swinging his cane with a careless gesture, he stood there in a brown study.

Between the Low mansion and the house that stood at its rear was a large yard—rather large, indeed, even for the home of a New York millionaire. The house was set back from the street, and so was the outer wall of the yard. This wall was of solid brick and cement, and was built to a height of ten feet.

In the center of the wall was an entrance—a heavy iron door—which opened only on the inside. Fulward was taking it all in with a critical eye. This evidently was the entrance used by the servants.

He wondered if the top of the wall were smooth or covered with pieces of broken bottles stuck in mortar. He also wondered if the private museum were within close proximity of a certain window about five feet above it and facing the street.

Fulward might have been considered a bit bold in thus exposing himself to the police should any be around; but he had come to the conclusion that a man of his standing in the community could easily explain his presence if accosted. On the other hand, a lurking, suspicious man would be more quickly "covered" than he who came out boldly.

His eyes were making hasty measurements of the various corners of the millionaire's home, when, with a peculiar suddenness that made his heart thump, the iron door opened and a woman stepped out.

Fulward started to walk away as one unconcerned, but something about the woman arrested his attention.

With the easy eye of the connoisseur, he might have been admiring the building. Instead, he was looking at the woman.

He was quite sure that she was not one of the servants, for a servant would not have stood on the threshold of the gate so gingerly and looked so appealingly up and

down the block. A servant would not have started in the direction of Madison Avenue, and just because she saw a man approaching from that thoroughfare, turn and walk toward Fifth Avenue. But this particular maneuver pleased Mr. Fulward. He walked to the corner of Fifth Avenue and stood on the curb and waited.

The woman came along and stood very close to him, looking up and down the thoroughfare.

In the darkness, and because of the rather heavy veil that covered her face, it was not easy to get a good view of her features. Fulward's keen eye, however, was not slow in gathering that she was rather young and frail and dressed in good taste.

Her hat was small and jaunty, and the cut of her clothing showed that she had studied the modes. Around her neck was a muffler of silver fox from the ends of which dangled two tails of unusual size, and her hands were incased in a muff of the same expensive fur.

Fulward did not want to seem impolite or impertinent. He did not want to exhibit an ungentlemanly curiosity or the leering look of a policeman. He wanted to know why that young woman had so completely arrested his attention.

Just then one of the big green buses that ply the avenue came along, and the young woman stepped forward, held up a dainty hand, and got aboard.

It was only natural that Fulward should be waiting for the very same bus. Therefore, he boarded, too. The vehicle was somewhat crowded, and the young woman was so seated that when Fulward wedged himself into a comfortable attitude, she was directly in front of him.

She took a tiny purse from her muff, but she was some time in locating it in the capacious hand-warmer. For a moment Fulward felt that he might have to offer to pay her fare.

Fulward deliberately took her in from head to toe. She was rather pretty. He could see through the veil, in the brightly illumined bus, that she was more than ordinarily good-looking, with wavy blond hair and a fair complexion.

Fulward began to wonder if she were aware of his persistent gazing. She had hardly looked at him, but had kept her poise so calmly under his apparent scrutiny that he believed she was not disturbed. Then he thought himself a fool for having noticed her at all. Why had he gone to this extreme? Why had he let this girl arrest his mind to such an extent—he who had cared so little for women as to have remained a bachelor for forty-two years?

On the other hand, there was something so peculiar about the manner in which she came out of the gate of the Low mansion, something so queer, so unnatural in her manner as she looked up and down the street, that he was sure that she had a secret hidden, perhaps, in the silver fox muff which she held so gracefully. He wondered.

The bus rumbled into Fifty-Seventh Street. Near the corner of Broadway the girl beckoned to the conductor to stop. In another breath she had gracefully stepped from the vehicle.

Fulward was so wedged in that he was unable to turn to see the direction in which she started when she left the car. He did not care to attract attention by following her. So he rode on for three or four blocks and then alighted. Turning toward Broadway, he walked in the direction of that thoroughfare. When he reached it—gay with the white lights that have given it a world-wide fame—he looked in either direction, not knowing which way to turn.

"I will stroll toward Forty-Second Street," he said. "Maybe she will pass me. I know it is like looking for a needle in a haystack, but—maybe she will pass me."

As Fulward walked on, he said again:

"I don't know why I should have been so terribly interested in that girl. Perhaps it has some connection with the old theory that it takes one thief to catch another. Who knows?"

CHAPTER IV.

In the Early Hours.

FULWARD reached home rather early that night. Home, to Fulward, was an apartment of three rooms in a building, entirely devoted to bachelors, that stood midway between Fifth Avenue and Broadway in the forties—a building filled with an array of apartments ranging from three rooms to seven, always crowded, and always popular, and the tenants were all men whose names stood for something in the various callings of the great city.

Fulward occupied one of the smaller

apartments. It was elaborately and most comfortably furnished. It contained all the little things that a bachelor likes—a reading-table and a drop-lamp, a humidor for cigars, a great bowl of fine tobacco and a dozen pipes, and a walnut sideboard in which Fulward kept a small but select stock of rare wines and several bottles of whisky—and in order to establish a side of this man's character not hitherto told, he was a teetotaler in every sense of that hybrid word.

The liquids were kept only for his friends, and they were legion. Fulward made friends and made them quickly. Having made them, he held them. He spent money on them with a lavish hand, and he loaned it to them to such an extent that he was called a good thing. His dinners were a delight, and his motor-trips to Long Island and other spots dear to the New Yorker were frequently attended by large parties—and Fulward paid most of the bills.

Fulward drew his comfortable chair alongside his reading-table and lit his favorite pipe. Peering through the clouds of smoke, he reviewed his own criminal career, looked with a pitying face at the portrait of his dear mother, whom he thanked God was dead and could never know the disgrace that might come to him, and then—he thought of the girl.

Suddenly he arose and paced the floor.

"I'm a fool! I'm a fool!" he said aloud. "Why, that woman was nothing—nothing! I'll forget her. There!"

He did forget her. He drove her from his mind, and all the next day and the next he gave up his spare moments to the development of the scheme that would lead to the theft of the Thousand-Mile Ticket. That was to be the paramount issue in his career until it was consummated or proved to be worthless.

It seemed to him that, with his intimate friendship among prominent men, it would not be impossible for him to get some sort of an introduction to the Low home. It was known in financial circles that the millionaire was not of the social few selected by family, age, and wealth to represent the élite of the metropolis. Although he had added the "Erasmus" to his name, and reduced the John to a simple "J.," this was for the purpose of having a signature that would be unusual and not easy to imitate should some evil-minded person try to use it fraudulently.

Aside from the exact value of the securities and first mortgages that came into his keeping, and the whirling flourish with which he signed his famous name, and his art collection, he had no other whims whatsoever. He was a plain, ordinary man, fond of all the good things of life, but when it came to putting on dadoes in order to appear at Mrs. Tufthunter's tea or Mrs. Parvenu's evening, he was out of the running. The only man or woman who was better than J. Erasmus, in his calculating mind, was the one who could make more money than he.

So, with this kind of a man to deal with, it did not seem difficult to Fulward to get an introductory letter on the pretense of examining some of the art treasures in the old man's collections.

Now, there was Jimmy Stanwood. Jimmy was a sort of majordomo to the Lows, and when the head of the family preferred the comfort of his bed to a night at the opera, Jimmy acted as escort and got a good dinner, a ride in the Low motor-bus, and heard some good music—and all because he was a comely good-for-nothing, with a pleasant manner and a good tailor.

Yes, Jimmy would be just the very man. The very man, indeed. Fulward would ask him to dinner at the club, and then, in his easy-going way, would turn the subject to art and art collectors, and J. Erasmus Low would be the main topic.

And Fulward would say how he would give his life to see the wonderful things that were stored in the Low museum, and wouldn't Jimmy—wouldn't he please give him a letter to Mr. Low, or get permission to bring him to the house, or—anything, so long as he could spend an hour or so in that wonderful place drinking in the stories that the collection would tell, and incidentally slip the Thousand-Mile Ticket into his pocket.

Of course, Jimmy might hedge. He might feel that he would be overstepping his privileges in the Low household, and all that—but Fulward had always been a convenient man whenever a loan was needed—and Heaven knew that Jimmy Stanwood needed one often enough.

Yes, that was the plan—the best, most possible plan.

Fulward had come to that conclusion one afternoon just before the close of the banking day. Before he left the office he took a sheet of his private note-paper and wrote a most polite note to Jimmy asking him to

meet him at the club for dinner on the following night at seven, and if he could not make it on the night stated, to come at the earliest opportunity.

He placed the letter in his pocket. He would mail it when he left the office. Leaning back in his chair, he lit a cigar and smiled at the prospect. He was more than pleased with himself. He was a real genius, a regular Napoleon, when it came to developing diplomatic moves.

Then, like a mighty wave of desire, like a powerful fever that robs one of his strength, like the magnetism of one who vibrates in unison with our ideas, Fulward felt the inclination to steal come over him. Oh, there could be no harm in dipping into the pot once more! He had taken so much, so very much, that another thousand or two would not make the slightest difference whatsoever!

If he were to be caught, it would be just as well to be hung for a sheep as a lamb.

These and similar thoughts passed through his mind, and they were emboldened by the prospect of stealing the Thousand-Mile Ticket, the absolutely certain prospect, the very great reward that would be offered, the return of the precious document, the covering up of his peculations, and the honest, upright life that he would lead ever after. No, another thousand or two would make no difference — no difference whatsoever.

Fulward arose, pushed his hat on the back of his head, swung open the door of his private office, and with the brisk air and studied demeanor of a man on whose head is resting the troubles of the world, walked into the collection department.

Patrick Carr did not pay the slightest bit of attention to him. Mr. Fulward was too familiar a figure around the offices, working after banking hours, and Patrick was too accustomed to his energy to give him even a look.

Mr. Fulward entered the collection department. He remained within its brass-latticed walls for a period of ten or twelve minutes. Then he returned to his own office, closed his desk, put on his overcoat, and passed into the street. At the first mail-box he posted the letter to Jimmy Stanwood. Then he took four five-hundred-dollar bills from his trousers pocket, rolled them up tightly, and transferred them to his pocketbook.

He went up-town, and, after dinner, to his favorite pastime—roulette. He played with his usual luck. He ran the two thousand up to five thousand, and then, in an effort to double, dropped back. When he decided to quit, there remained about five hundred of the original two thousand.

When he reached home that night it was unusually late. He had played longer than usual, and it was nearly one in the morning when he turned the key in the front door and aroused the sleepy colored boy who operated the elevator to a sufficient state of animation to be taken up to his floor.

The hallway was illumined by subdued electric lights, and the heavy carpet on the floor—purposely used so that those who came home late would not disturb those who were already asleep — seemed softer than ever to his footsteps.

He inserted the key in the lock, opened the door, and stepped inside. All this he did with a peculiar sense of the unwritten rules of the apartment—rules made by the bachelor tenants themselves—that one coming in during the small hours would move as much like a ghost as possible. So Oxenham Fulward opened his door with the caution of a nurse in a hospital ward, and with equal caution closed it.

He had thrown his coat half off, when an unmistakable metallic tapping in the living-room turned him as livid as a stone.

He listened. The tapping stopped, and then it started again.

There could be no mistaking the sound—but what in the name of all that was good could any burglar find in his rooms? He smiled at the thought.

He pulled his coat over his shoulders, and stepped as softly as a cat from the little hall into the room.

He knew just where the button was that would throw the room into a flood of light. It was right at his elbow. He had only to touch it, and the midnight marauder would be cowering before him in all his iniquity.

He watched the tiny round light of the burglar's lantern as it flashed up and down the door of the walnut locker in which he kept his liquors. True, he kept it locked that the servants of the place might not be tempted; but what—what did that burglar expect to find?

Did he take it for a jewel-case? Fulward was tempted to smile again.

He stood in the darkness. A sharp pain gathered in his breast, for he was frightened

lest something would disturb the worker. Again the burglar ran his tiny lamp over the locker, again it dropped, again there was a muffled noise, and again the click, click of the hammer on the jimmy as it slowly pried its way into the lock.

"Poor fellow," thought Fulward, "if he is so hard up for a drink as to enter my house and pry open my 'wine-cellar' with his blooming burglar-tools, I'll treat him to a good four fingers of my best and let him take a bottle home with him."

He raised his arm and silently pressed the electric button. Every light in the room flashed bright. Fulward threw up his hands and gasped.

A shriek—a woman's shriek—pierced the astonished man's heart. The marrow in his bones seemed to be turning to ice as he beheld, the mingled picture of grief and shame, crouching before him, the very girl whom he had so keenly observed after she came out of the iron gateway of the palatial residence of J. Erasmus Low.

(To be continued.)

THE MAN AND HIS WORK.

Just Why the Erie Railroad Honored an Engineer by Naming His Locomotive for Him.

A RECENT innovation of the Erie Railroad in placing the name of a trusted engineer on either side of the cab of his locomotive is decidedly a move in the right direction. This man handled the same engine for a very long period; he contributed toward few, if any, engine failures, and he kept the machine out of the shop for a phenomenal period, as such things are measured, before heavy repairs became necessary The interest which he feels in his locomotive is largely proprietary. He would not accept maybe a better paying run because he could not take it along with him on the new job. Now the company gracefully recognizes his faithfulness and skill by identifying him with his engine.

We think well of this departure, and are confident that it will bring results in widespread efficiency which will prove most gratifying. It is a very common old world procedure, and was particularly recommended in instances of special worthiness by the late M. du Bousquet, of the French Northern Railway, one of the most able demonstrators of the art of handling men who ever held an executive position. His splendid locomotives on the Paris-Calais line, the fastest passenger service for the distance in the world, bear prominently the names of their engineers and firemen. The London, Brighton and South Coast Railway paints the name of any engineer of proved efficiency in his cab; the London and Northwestern has it under consideration, and many continental roads have adopted the practise

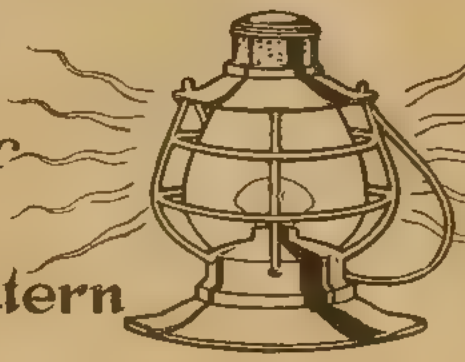
It conveys a hidden but nevertheless undeniable appeal to any engineer and fireman, despite the fact that it would be difficult to define its exact nature. It is an assurance on the part of the company that the locomotive in question will remain in possession of its master, and that he will thus be publicly proclaimed as a good engineer just as long as the honor is merited. There is not a man in this world so indifferent as not to be appreciative of this, and who would not be reluctant to see those big gold letters effaced from under his cab windows. It is equally safe to assert that anything he can do will be exercised to keep them there

A too liberal application of the idea might perhaps lessen to some extent the high degree of honor so conferred, but the Erie can be trusted not to fall into this error. So far, there have been but three locomotives on the system thus adorned, but vastly more than three of its engines are struggling for like preferment. No mistake has been made by this railroad in establishing a plane of superior and recognized merit, and it is a departure which may be followed to advantage in the locomotive practise of any country.—*American Engineer and Railroad Journal.*

Keep your oil for your gears, don't waste it on the boss. He won't like it, anyhow. Respect doesn't mean servility. The Shack.

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. It is limited to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

HAS anything been done about House Bill 22,237, introduced by Congressman Murphy, in regard to the eight-hour law for railroad operators?—W. H. B., Mayville, Michigan.

House Bill 22,237 was referred to the Committee on Interstate and Foreign Commerce, but was not reported from that committee

WHY isn't a passenger brakeman promoted to passenger conductor as a freight brakeman is so promoted?—B. D. M., Oroville, California, and F. C. A., Waco, Texas.

A general belief seems to exist among trainmen that a proper line of promotion is from freight brakeman to freight conductor, and from freight conductor to passenger conductor. Passenger brakemen are generally promoted to train baggagemen, but, in late years, a large percentage of the train baggage work has been taken over by the express companies, principally because the express companies pay a lower wage, and also prohibit their employees from affiliating with labor organizations. In many of the brotherhoods of trainmen working agreements there will be found the provision that a passenger brakeman cannot be promoted to a conductorship until he has served a given time as freight brakeman, usually two years. It is reasonable to believe that freight brakemen better understand practical railroading than passenger brakemen; and as it is found that freight brakemen and conductors are in the majority, their influence is shown in the working agreements now in effect from the Atlantic to the Pacific.

WILL gasoline freeze, and if so, at what temperature?—R. J. H., San Diego, California.

It has never been known to freeze in the official tests of the Galena-Signal Oil Company. We understand that Saybolt has run it as low as 160 degrees F. below zero without any indication of solidification.

WHICH single track road in New York State operates the most trains in 24 hours? My opinion is that it is the Rome, Watertown and Ogdensburg Railroad.—H. C. D., Utica, New York.

From a careful canvass of the situation, it seems that the Allegheny Division of the Erie Railroad, from Hornell to Salamanca, handles the greatest number of trains within the time mentioned. The Erie main line is double-track to Hornell, after which the single track begins, therefore this section of the road comes within the requirements of your question. We cannot give the exact number of trains handled, but, no doubt,

the general manager's office of the Erie 50 Church Street, New York City, will furnish this information

IN the Stephenson link motion, if the link were pivoted in the center with one end attached to a single eccentric, and a radius rod to connect the link and rocker arm, would it not give the same result as the use of two eccentrics?

(2) Can a locomotive be stopped by putting the reverse-lever in the center of the quadrant?—J. L. C., Albert Lea, Minnesota.

(1) In remodeling the motion as you indicate, it is practically transforming it into the Walschaert gear. This gear employs the pivoted link and one eccentric rod connecting the return-crank on the main pin with the lower part of the link. Read an illustrated article on the Walschaert valve-gear, which appeared in the November number of THE RAILROAD MAN'S MAGAZINE, and which contains diagrams of both motions. This will make clear to you the difference in the two gears.

(2) When the reverse-lever is put in the center of the quadrant, the movement of the valve is so restricted that, ordinarily, no steam is admitted to either cylinder, and the locomotive must necessarily stop in time. Such practise, however, is seldom resorted to, and the middle notch is seldom used unless the engine is left to stand unattended.

WHAT is the weight of the largest Shay locomotive in the world, and on what road is it used?

(2) In giving the tonnage of an engine are the drivers included?—A. McM., Chihuahua, Mexico.

(1) The largest Shay engine which has been built up to the present time by the Lima Locomotive and Machine Company, is for the Chesapeake and Ohio Railway. Its weight, in working order, is 310,000 pounds. The C. and O. has eleven of these engines in service, and two more under construction. The general dimensions are as follows: Number of cylinders, 3; diameter and stroke, 17 in. x 18 in.; number of driving-wheels, 16; total wheel base, 58 ft. 4 in.; boiler diameter, 62⅜ in.; boiler pressure, 200 pounds; fire-box length, 114 in.; grate area, 48.48 sq. ft.; number of boiler flues, 310; diameter of flues, 2 in.; length of flues, 13 ft. 6 in.; tractive power, 53,000 pounds; water capacity of tank 8,000 gallons; and fuel capacity 18,000 pounds.

(2) As dimensions are ordinarily given for locomotives, the weight on drivers, and on leading and trailing-trucks are shown separately. Drivers, trucks, and everything are included in the total weight in working order.

WHY are most bridges called viaducts? Is the latter just a name, or is there any particular reason for the designation?

(2) Is the Southern Pacific the only road which has the Mallet compound engines?

(3) Does the S. P. own the largest engine?

(4) Why are the Mallet compound engines called "Baldwin hogs"?—C. C. J., Shreveport, Louisiana.

(1) A viaduct and a bridge are the same, but the former term has come to be more generally applied where the bridge crosses a deep gorge or a valley.

(2) No, they are used on the Frisco Lines, the Great Northern, the Virginian, the Erie, the Baltimore and Ohio, the Santa Fe, the Mexican National, Norfolk and Western, Delaware and Hudson, and many others.

(3) The heaviest is No. 1700, of the Atchison, Topeka and Santa Fe Railway. Its total weight is 462,450 pounds, of which 412,350 is on the drivers.

(4) The Mallets are not so designated. If so, it is done locally, and, perhaps, because the engines in that section happened to be the output of the Baldwin works. The American Locomotive Company builds just as many Mallets, because this type has come to be practically regarded as standard for heavy grade work. A large number of these engines will be constructed during 1911.

WHO built the first locomotive engine in the United States, and in what year?—S. V. T., Key West, Florida.

America's pioneer locomotive builder was Peter Cooper, a well-known merchant of New York, who, on August 28, 1830, put the first locomotive, "Tom Thumb," on the Baltimore and Ohio Railroad between Baltimore, Maryland, and Ellicotts Mills, about 14 miles from Baltimore, this comprising the total length of the road.

The "Tom Thumb" had a vertical multi-tubular boiler, and was mounted on four wheels. There was one vertical double-acting cylinder, 3¼ in. diameter, and 14 in. stroke. The piston-rod passed through the upper cylinder-head to a cross-head running in two round guides. The connecting rod was attached to the outer end of the cross-head and extended downward to a crank-arm on an intermediate shaft secured below the frame. The end opposite to that carrying the crank-arm had a gear which meshed with another equal to one-half of its diameter, the latter being fixed to one of the main axles. The valves were worked by eccentrics having "V" hooks. The supply of water for the boiler was carried in a barrel located on the platform and connected with a pump worked from the engine. The Tom Thumb weighed only one ton. It was not over 1½ horse-power, yet it pulled 4½ tons at 12 miles an hour.

M. F., Rochester New York.—The number .7854 represents what remains of an exactly square area when it has been converted into a circle of equal diameter. For instance, the square area 1.0000 loses a certain amount when the corners are cut off to form the circle, and this

amount, which has been found to be .2146, must be subtracted from the unit, leaving .7854.

For example, we will take a circle 8 inches in diameter. Multiplying this diameter by itself, gives 64 square inches, which it would contain if it were a square; but as we are dealing with the area of a circle, it is necessary to multiply the 64 square inches by .7854; in other words, to insure that the proper reduction is made for the missing corners, and which gives about 50.26 inches.

R. B. M., Princeton, British Columbia.—The amount of steam pressure to be carried on a home-made boiler 4 feet high, is entirely dependent on the material from which it is made, and the peculiarities which enter into its construction, but, without a thorough inspection of the boiler we could not consistently advise you. Boilers are generally designed with 5 as the factor of safety; in other words, that they are to operate at one-fifth of the bursting pressure. Submit your design to some up-to-date boilermaker, or foreman, and he will, no doubt, straighten you out.

WHAT railroad has the largest compound locomotive in the United States? How many lubricators has it? Does it have flange-oilers? How is the reverse-lever worked, and what are its principal dimensions?—H. L. F., Cheyenne, Wyoming.

Engine No. 1700, of the Atchison, Topeka and Santa Fe Railway, is the largest according to our latest record, compiled July 1, 1910. This engine is of the Mallet (2-8-8-2) type, equipped with Jacobs superheater and feed-water heater. It exerts the enormous tractive effort of 108,300 pounds. The total weight of the engine in working order is 462.450 pounds, distributed as follows: on drivers, 412,350; on truck, 24,050; and on trailer, 26,050.

The weight of the tender, loaded, is 234,000 pounds. The high pressure cylinders are 26 in., and the low pressure, 38 in., both with a stroke of 34 in. The diameter of the driving-wheels is 63 in., and the working steam pressure, 220 pounds.

The boiler has 387 flues, 2¼ in. diameter, and 21 ft. long. The total heating surface, including boiler heating surface, and feed-water heating surface, is 6,674 square feet. The engine burns oil, and has a tender capacity for 4,000 gallons of oil, and 12,000 gallons of water. Two lubricators are employed, but no flange-oilers. The reverse-lever is operated through power gear.

C. P. Jacksonville, Illinois.—The bridge which you mention in Kentucky, at High Bridge, over the Kentucky River, with 323 feet above the river, is the highest of which we have any information, and, no doubt, exceeds all others in that regard in this country. You can find out much more about the name given Burgin, Kentucky, through direct inquiry in your own section. Local names seldom reach outside the railroad system on which applied. The throttling-governor has never been seriously considered as an appliance for a locomotive, and has never been applied so far as we are able to learn.

WHAT are the chief duties of a division engineer? In order to work up to such a position, what subjects would you consider advisable to study? Are there any chances for a young man with a fairly good education to get a position in an office of this kind and work his way up?—H. C. N., Boston, Massachusetts.

You can do no better in your quest for definite information on this position than to read carefully the three articles, "Surveying for a Railroad," "Building a Railroad-Track," and "Keeping a Railroad-Track in Order." These appeared in the March, April, and May, 1909, numbers, respectively, of THE RAILROAD MAN'S MAGAZINE. The pay for a division engineer ranges from $125 to, maybe, $250 a month. He has charge of the maintenance of the track on a division, and sometimes of the bridges and buildings also, where the road does not have a superintendent of bridges and buildings.

In this latter case, his duties are practically confined to track. The section-foreman reports to the supervisor, and he, in turn, reports to the division engineer or to a roadmaster, who so reports. In order to make any headway in securing such a position, it would be necessary for you to take a course in civil engineering, and, for that reason, college graduates have much better opportunities in the engineering than in the other departments of railroading.

There are instances, of course, where the requisite of an engineering education is waived, and the newcomer learns on the job. Call on one of the division engineers of the Boston and Maine or New Haven roads in your own city, and he will explain to you what opportunity exists. It is very attractive work, and is fairly well compensated.

WHAT lines are under control of the Harriman system?

(2) What is the length of the Minneapolis, St. Paul and Sault Ste. Marie Railway, and what types of engines does it use?—M. R. K., Baden, North Dakota.

(1) The Harriman lines, so called, are composed of the following: Arizona and Colorado Railroad; Coos Bay, Roseburg and Eastern Railway and Navigation Company; Corvallis and Eastern Railroad; Galveston, Harrisburg and San Antonio Railway; Houston and Texas Central Railroad; Houston East and West Texas Railway, and Houston and Shreveport Railroad; Iberia and Vermilion Railroad; Ilwaco Railroad Company; Louisiana Western Railroad; Maricopa and Phœnix Railroad; Morgan's Louisiana and

Texas Railroad Nevada and California Railway, New Mexico and Arizona Railroad Oregon Railroad and Navigation Company; Oregon Short Line Railroad; Phœnix and Eastern Railroad; Sonora Railway; Southern Pacific Company; Southern Pacific Railroad in Mexico; Texas and New Orleans Railroad, and the Union Pacific Railroad. The total mileage of the above group is approximately 30,000 miles.

(2) It has a mileage of 3,525 miles, 446 locomotives, and 24,102 cars. The power follows the prevailing standard types, and with no unusual departures therefrom of which we have been advised.

WHAT city has the most railroads, Chicago or St. Louis, and how many?—F. E. E., Winkleman, Arizona.

Chicago has the most. It is the meeting-place of 32 railroads. These are composed of 26 through, and 6 local lines, representing altogether 90,000 miles of track. This means that the Chicago roads include more than one-third of the entire mileage of the country.

E. D. K., Tanred, Montana.—Your question in regard to the heaviest tonnage handled on the Great Northern Railway from Kelly Lake, Minnesota, to the ore docks, can best be answered by J. M. Gruber, general manager, St. Paul, Minnesota and to save delay we would advise you to write him direct.

WHICH part of a locomotive wheel moves forward the faster, the part at the top or the part at the bottom?—C. H. S, Detroit, Michigan.

To prove that the top of the wheel moves the faster would be quite easy through the use of a diagram, but it may surprise you to know that the point of the wheel in actual contact with the rail does not move at all. This may seem inconceivable, but it is an actual fact, nevertheless.

The leverage of the main rod on the crank-pin, which in reality propels the locomotive, must be exerted at some point where the propulsion will be of some avail, otherwise the wheel would simply turn in relation to itself and not move the locomotive in a progressive direction. The point of contact between the wheel and the rail, therefore, becomes a fulcrum, and it must remain stationary in order that the leverage may be exerted.

Of course, the time that it is stationary is so small as to be immeasurable, nevertheless it exists beyond dispute So much for the first, or lower point, of the wheel under consideration.

A wheel is a circle, and the center of this circle, in the instance of a locomotive, would be the axle Then, so long as the lower part of the circumference does not move at all, as has been explained, the axle can only have a movement equal to the actual progressive motion of the locomotive on the rails, while the upper part of the wheel must have a movement equal to twice that of the axle

This may be a somewhat labored explanation, but it is a fact which cannot be disputed. The upper part of the wheel, in direct answer to your question, and taking diametrically opposite points of infinitesimal dimensions, moves infinitely faster than the lower point. The diagram which would convincingly illustrate this is known as that of the cycloid curve. It is difficult to convey in print, but assuming a point on the rail exactly under the vertical center line of the axle, and another a point on the rail exactly under the extreme rear of the circumference of the wheel, turn the wheel one-half a turn. It will be found that while the first point indicated has advanced a certain distance, the last named point will have advanced over twice that distance; therefore, it must be conclusive that the upper part of the wheel turns much faster.

C. B., Ottawa, Ontario.—No cross-compound engines were built last year in the United States, but some of the Richmond type are now building at the Montreal works of the American Locomotive Company, for the Grand Trunk Railway. In the past they were used more in freight than in passenger service, but have been run in passenger with fair average results.

It is recalled, in this connection, that the Southern Railway had one, No. 909, which did very well in passenger service between Knoxville and Chattanooga, Tennessee, during 1904, at which time the editor of this department enjoyed the honor of assisting in its performance. Theoretically, the advantage of a compound locomotive over a simple engine lies in its ability to utilize a greater degree of the expansion of the steam; a greater degree of temperature between the live and the exhaust steam, and, therefore, for the same work performed, its smaller consumption of steam

With the cross-compounds, the limit of power available is attained when the diameter of the low pressure cylinder is so great as to reach the clearance limits allowed on any particular road (in practise, about 35 inches), and, in addition, they possess the defect of all two-cylinder engines, lack of balance, which is destructive to track and roadbed. Compared with simple locomotives doing the same kind of work, compounds show a saving in coal and water of 20 to 30 per cent.

Stated in another way, the compound develops from 20 to 30 per cent more power than the simple engine of the same type consuming an equal amount of fuel and water. Liability to breakdowns and cost of repairs are items which usually show a balance in favor of the simple engine.

The fastest runs in Europe, on which you desire information, are not made by engines of the cross-compound type. Read the article in the February number of THE RAILROAD MAN'S MAGAZINE, "Europe's Most Famous Run," and the dif-

ference in compounding will be made quite clear to you.

R. B., Kesseville, New York.—The Westinghouse "ET" brake-equipment represents a development of the automatic brake, so it is rather difficult to say which type is now in more general use. Although the "ET" equipment has made vast strides since its introduction, there is every reason to believe that the older, or automatic form, still remains in the majority. Practically all new locomotives, however, are equipped with the "L T."

There is no reason why a train could not be held for ten minutes on a slight grade by the air-brake. It would, no doubt, leak off in time, but the attention which is now being given this detail would practically insure against this.

A book which would help you very much in your preparation for the duties of a fireman is "Standard Mechanical Examinations on Locomotive Firing and Running," published by F. J. Drake & Co., Chicago, Illinois. It contains the progressive examinations for the first, second, and third-year firemen which have been adopted as standard by the Traveling Engineers' Association.

WHAT is meant by the term "working pressure?"

(2) Are compound locomotives, with the exception of the Mallet type, a complete success in this country? If not, why?

(3) What is meant by reducing the pressure of a locomotive?

(4) Is there an advantage in the Belpaire boiler over the wagon-top or straight type, and why is the pressure per square inch generally greater in the Belpaire?—S. C. H., Avon, New York.

(1) It means the amount of steam pressure in pounds per square inch under which the boiler has been designed to work.

(2) See reply to "C. B.," Ottawa, Ontario, in this issue.

(3) It may mean one of two things, dependent upon the conditions. As ordinarily employed, the term implies reducing the steam pressure, as shown per gage, in the face of some emergency; as, for instance, where the throttle-valve cannot be closed, or to pack some cock, or the throttle stem, where the packing has blown out. It is usually effected by removing one of the steam-chest relief valves and opening the throttle valve, or waste can be wrapped around the opening of the whistle-bowl to deaden the sound, and the whistle opened. This process, however, is much slower than that first mentioned.

Reducing pressure is also resorted to as a permanency when a boiler grows old or where defects in design are present which makes it inadvisable for the locomotive to carry the pressure contemplated. In the instance of an old boiler, originally designed to carry 180 pounds pressure per square inch they are usually cut down to 170 pounds after some fifteen years.

(4) Each of these two types of boilers has its own advantages and disadvantages, and these have been the subject of much discussion. It must be finally recognized that neither the one nor the other is very definite, but the wagon top boiler is more extensively used and it appears to be preferable in the case of large boilers. A few of the larger railroads, including the Pennsylvania and its allied lines, and the Great Northern, are using the Belpaire boiler, but in each case their latest engines have been equipped with the wagon top or round top form. The Belpaire is somewhat more expensive to construct than the other and adds a certain amount to the weight of the boiler without a corresponding increase in the heating surface, hence the largely predominating use of the simpler wagon top. The Belpaire does not carry any more pressure than the other type of boiler.

J. S., Portland, Oregon.—The master mechanic of the North Coast Railroad is W. M. Sinton, Spokane, Washington.

DOES the center of a shaft turn when running? I mean the finest center possible.—M. S. DeM., Palestine, Texas.

Reducing the center to the line of atoms which compose the exact center implies, of course, no rotary motion. Authorities claim, however, that even with this infinitesimal exactitude this line of atoms is continually changing position with those adjacent. Still it may be safely asserted that the exact center has absolutely no motion, provided that the shaft is hung in hangers and is stationary. In the instance of a locomotive driving-axle or shaft, the exact center has progressive motion dependent upon the speed of the locomotive, but no rotary motion.

WHAT is the average running time of the Twentieth Century Limited between Chicago and New York?

(2) Name some other passenger run having an average speed of fifty miles an hour, or better?

(3) Considering the time lost making station stops, pulling through big cities, etc., do not American passenger-trains beat all foreign passenger-trains for actual, not average speed?—W. D., Sioux Falls, South Dakota.

(1) The distance over the New York Central and the Lake Shore and Michigan Southern is 964 miles, and the average speed in miles per hour is 53.5.

(2) Pennsylvania: Jersey City to Chicago, 50.9 miles per hour; New York Central; the Empire State Express, New York to Buffalo, 53.3 miles per hour. The fast short-distance runs between Camden and Atlantic City, New Jersey, 59 miles by the Pennsylvania, and 55.5 by the

Reading, are made at speeds of 68 1 and 66 6 miles per hour, respectively, from start to finish.

(3) No, they do somewhat better abroad, but the trains are not nearly so heavy, and, altogether, conditions there are such that they scarcely admit of comparison with those in this country.

WHAT is the world's record for fast running, and where was it made?

(2) Is there any train in England which runs at the rate of two miles in a minute? What is the fastest English run?—S. R. S., Sturgis, Michigan.

(1) A distance of 48 miles was made in 2 minutes and 40 seconds at the rate of 107 90 miles per hour on the Plant System, March 1, 1901.

(2) No, certainly not. No such time was ever made by a steam locomotive and will not be as their arrangement now stands. London to Bristol, by the Great Western Railway, 118 miles in 120 minutes, or at the rate of 59.2 miles per hour, is the fastest run in England at present.

E. E. M., Temecula, California.—It is said that Baldwin Locomotive Works can turn out 3,000 locomotives in a year should such a demand be put upon its resources.

J. F. Q., Napa, California. Some of the principal reasons for using the Walschaert valve-gear are the following: It is lighter and more accessible for adjusting, cleaning, and oiling than the Stephenson gear must necessarily be on a large engine. By removal of the valve-motion parts from between the main frames, more substantial cross bracing and stiffening of these frames is permitted. The increasing size of axles and greater throw of eccentrics requiring larger sheaves, coupled with the lateral play of driving-boxes, results in rapid wear to Stephenson eccentrics and straps. The inertia, due to the increased size of these parts, long and heavy transmission, bars, etc., has a great deal to do with shortening the life of the Stephenson motion as a whole. A strong point of the Walschaert gear is that once properly set the valves remain square longer than with the Stephenson. This goes far to offset the probable better general steam distribution obtained by the latter motion, for, if the valves do not remain as set, the economy from that setting is lost. Theoretically, the constant lead of the Walschaert gear is a distinct disadvantage when applied to a locomotive which is to be operated at any considerable range of speed; but in practise, this objection is more than offset by the greater ease with which the reverse-lever can be handled.

R. R., Rockville, Connecticut.—We do not believe that a boy fifteen years old would stand much chance of being taken on as a caller, unless under peculiar circumstances, for instance, being the son of an injured employee.

J. M. Collins is master mechanic of the New Haven road, at East Hartford, Conn.

F. M. A., Sandusky, Ohio.—In regard to pictures of old locomotives, write to Charles S. Given, Bowdoinham, Maine.

WHEN KATE SHELLEY SAVED THE EXPRESS.

THE recent retirement of E. G. Wood, one of the oldest engineers in the service of the Chicago and Northwestern Railway, brings to light a most interesting story of railroading:

Mr. Wood was one of the engineers who grew up with the Northwestern. He was born in New York State in 1841, where he spent his first quarter of a century, and where he became the husband of Miss Clara Main. Like many other energetic young men, the West looked attarctive to him, so in 1865 he and his wife set their faces toward the prairies of Iowa. They stopped at Boone, which was the terminus of the Chicago and Northwestern at that time, and started a boarding camp for the men who were building the first bridge across the Des Moines River.

It was at this bridge in later years that the most thrilling incident in his life occurred, says *The North Western*. About sunset, July 6, 1881, a tempest burst with terrible fury in Iowa. In an hour, the Des Moines River had risen six feet. Kate Shelley, a girl eighteen years old, stood at a window looking at the Honey Creek bridge when she saw through the darkness the headlight of an engine move steadily along for a moment and drop suddenly. She ran to the bridge after lighting an old miner's lantern held in a railroad frame, and saw that the bridge was gone. She shouted and swung her lantern over the rushing water. A faint answer came from the engineer, who was the only survivor of the crew.

The engineer told her to go to Moingona station, a mile away, and warn the fast express train, then nearly due. She ran to the high trestle, 500 feet long, over the Des Moines River, where her light went out. In the storm she crawled across the dizzy structure, reached the station, told her story, and fell unconscious.

The engineer who sent her on that mission was E. G Wood. He remained in the water until six o'clock next morning, when he was rescued by Thomas McPherson, a miner.

Mr. Wood began firing for the Chicago and Northwestern in 1867, but the Iowa farm lands looked good to him, and the next year he took a farm, but in 1872 he reached his final choice and has been in the engine service of the company ever since.

THE SUDDEN-DEATH SEMAPHORE

BY LILLIAN BENNET-THOMPSON.

Why the Second Appearance of the Vision Proved a Tragedy After All.

"I WOULDN'T have believed that one could find such a bit of wilderness so near the city, if I hadn't seen it with my own eyes," observed Post, looking out of the car window at the rugged country.

"City!" jeered Harding derisively. "You call Olney a city? Why, New York could put the whole shebang into one pocket and never hear it shake!

"However," he added, "we won't knock Olney until we hear what mystery she has to offer us. From what Miss Westmore said in her letter, I should think—"

"Bother Miss Westmore!" interrupted Post. "Don't let's talk shop to-night. It will be time enough when we have to. By Jove, Rus! Look! Isn't that picturesque?"

Harding dropped his paper and leaned forward. The train was just entering a deep cut, so narrow that the frowning rock walls seemed almost to graze the car windows. It had been a huge task to hollow out a space sufficiently wide for even the single track which here took the place of the regular two-track system of the road.

The roar and rattle of the cars echoed and reechoed from the rocks, the deafening clatter making conversation difficult.

"Nice place for an accident," said Post. "I'd like to see it by daylight. I'll bet it's simply wonderful. It's so infernally dark outside now that I can't make out "

The sentence was never finished. The whistle shrieked. A jarring lurch threw the passengers forward.

Post's head came into violent contact with the back of the seat ahead of him, and he was temporarily stunned.

When he recovered his senses, he saw his friend's startled face bending over him.

"Are you all right, Jimmie?" Harding asked anxiously

Post sat up, passing his hand over his forehead in a half-bewildered way.

"I—I guess so," he said dazedly. "My head hurts like Sam Hill, but I guess it isn't broken. What's happened? Have we run into anything?"

"I don't know," replied Harding. "The train stopped—emergency brakes. I haven't had time to find out why. We may have run over some one or hit something on the track, but if so I don't think it's anything very big. If you feel like it, we'll get out and see."

The few passengers had all left the car, and a perfect babel of voices filled the air outside. Men were shouting and lanterns were flashing.

Post and Harding made their way between the coaches and the wall of rock to the engine, which had stopped in the cut a few rods from the mouth of a tunnel. A circle of excited, gesticulating men surrounded a dark object which lay between the rails.

"Is there a doctor here?" called out some one, as the investigators hurried up.

For a moment there was no reply. Then Post spoke.

"I'm not a doctor, but my father is, and I've studied a bit with him. What is it?"

"The engineer. This way. He looks as if he were dead."

The crowd parted to let Post through. On the ties just ahead of the pilot lay a man, flat on his back, his rigid face showing ghastly white in the glow of the headlight. His knees were drawn half way up, and his arms were outstretched.

Post bent over him, felt his pulse, and then made a hasty examination.

"Has any one any brandy?" he asked.

Some one produced a flask, and Post forced a few drops of the spirit between the engineer's set lips. In a moment or two a flush of life stole into the pallid cheeks; the man stirred, and uttered a low moan.

"He's better now, I think," said Post, rising to his feet. "Seems to have fainted. How came he here? Was he thrown from the cab?"

No one seemed to know, and the fireman was not in sight. If the sudden application of the emergency brake had hurled the engineer through the open cab window on to the track, a happening unlikely enough at best, the locomotive would still have had sufficient headway to run over him, and must inevitably have done so. Yet he was lying fully two yards ahead of the pilot!

The escaping steam filled the air with its sharp hissing, the gleam of the headlight flickered weirdly into the blackness of the tunnel and upon the rocky walls of the cut.

A few yards further along the green of the block-signal indicated a clear track. The little group around the engineer had fallen strangely silent; the whole scene was ghostly and unreal.

Post looked about for Harding, and discovered him standing a little way back, in earnest conversation with the fireman. As his eye fell upon his partner, he beckoned to him.

"This is Mr. Jackson, Jimmie," he said, as Post came up. "My partner, Mr. Post, Jackson. I have been hearing quite a remarkable story, Jim, which we'll hear again later. How's your patient?"

"Better," replied Post. "He'll do, all right. Wait, he's coming to; I must see to him."

He hurried back, just in time to see the engineer open his eyes and try to struggle to a sitting position.

"I'm done for!" came in a low, shaking voice from the pale lips.

"Nonsense, man!" cried Post cheerily. "It was just a faint."

"I'm done for, I tell you. No use wasting any time over me." The engineer's voice sank to a whisper. "I've seen the 'fantom engine'!"

The passengers who were near enough to hear exchanged glances.

The "fantom engine!" The man was crazy!

With the help of a couple of men, the engineer was carried into the baggage-car. He was so shaken and unnerved that he was totally unfit to run the engine, and accordingly the fireman took his place at the throttle, while the brakeman volunteered to act as fireman, *pro tem.*

While the train moved slowly through the tunnel toward Olney, Post, Harding, and the conductor remained in the baggage-car with the engineer, who was in a state of utter collapse.

He seemed either unable or unwilling to explain his action in stopping the train, or to tell what he had seen or heard. He lay on the floor, his eyes closed, his hands clenching and unclenching, muttering that he had twice seen the "fantom engine," and that his time had come.

Post dared not interrogate him, as it appeared to excite him, and the young man feared to aggravate a condition which might prove very serious.

In the coaches there was but one subject of conversation—the inexplicable stopping of the train in the middle of the cut, with the signals indicating a perfectly clear block ahead.

The only solution of the mystery seemed that the engineer had suddenly gone crazy, and imagined that his train was about to collide with something. That would explain his references to the "fantom engine," as surely no sane man would talk and act as he had.

Olney, the terminal, was reached without further incident. As Post left the baggage-car, having turned his patient over to a local physician, he was met by Harding, looking rather the worse for wear, hot, tired, and begrimed.

"Jackson has got to take his train in and make a report, and then he's coming over to the hotel," Harding said. "We'll cut along and clean up before he comes. I'm hungry, too."

"Jackson?" queried Post.

"Yes, the fireman. There's more in this than meets the eye, Jimmie. That engineer isn't crazy. He is just plumb scared to death. Jackson himself was almost too frightened to talk about it, but I got him to promise to meet us in our room as soon as he's off duty.

"I guess Miss Westmore's case will have to stand over a day. I'm going to investigate this 'fantom engine' business."

"What under the sun do you want to go

wasting your time and getting mixed up in any little local fuss like this for when there's an interesting case and a big fee waiting for you?" Post wanted to know.

Harding dropped one arm over his friend's shoulder as they walked along over to the hotel.

"For two reasons, Jimmie," said he. "First of all, Jackson is engaged to that engineer's daughter, and he says it will about break her heart if her father is dismissed from the road, which he certainly will be, if the officials think he's seeing things.

"The second reason is that the superintendent is likely to pay a fair-sized sum to have this mystery cleared up, because if such a superstition gets to be current on the line, it will hurt business. People don't patronize a road if they think the employees are crazy, you know.

After getting rid of the accumulated coal dust of their trip, the partners ate a hurried dinner and went up to their room to await the arrival of the fireman. In a very few minutes the latter was announced.

"Now, Mr. Jackson," said Harding, when he had seated himself, "will you be good enough to repeat to Mr. Post exactly what you told me? I want him to hear it at first hand, and see what impression he gets of it."

The fireman shifted uneasily in his seat, and cast a furtive glance at the door, which Harding promptly closed.

"I'm not what you'd call a coward, gentlemen," he said apologetically, "but somehow these last two nights have got my goat. It was this way," he went on, turning to Post.

"Joe Pratt — that's the engineer — was speeding up a little last night, because of being a couple of minutes late. I was putting a shovelful of coal on the furnace, when suddenly I heard him give a yell. Then he slapped on the emergency, same as he done to-night, and like to threw me head over heels.

"I looked up, and there Pratt, white as a ghost, with his eyes popping out of his head. We hadn't hit nothing, and I asked what was up. He didn't say a word for a minute, but just sat there staring ahead Then he turns around, and whispers, 'The fantom engine, Pete! I've seen it!'"

"Just a minute," interposed Harding. "Mr. Post and I are strangers here. What is the 'fantom engine'?"

"It ain't anythin', sir, and that's a fact!" was the astonishing reply I can't tell you it's an engine, because there ain't never anythin' there. But them as sees it twice running ain't long for this world! If a man sees it only once, it means a warnin'. Twice is death!"

There was no mistaking the fact that Jackson believed implicitly what he was saying. His voice was low and earnest, and although he kept his eyes cast down, his manner bore the stamp of truth.

"Do you mean to tell me that Pratt—who looks like an intelligent man—believes all that nonsense, and that he thinks he saw this engine?" demanded Post.

Jackson shook his head.

"He didn't just think he saw it, sir. He did see it. He told me the headlight flashed right into his eyes, just after he passed the curve at the center of the cut.

"He thought, of course, the signal had gone wrong, and that another train was coming, and he slammed on the brakes, expecting every minute to crash head-on into the other train.

"He says he just shut his eyes, and when nothing happened he opened them again. There wasn't any other train there. The track was clear ahead. Then he knew it was the 'fantom engine' he'd seen, and he —well, sir, it was pretty bad for him, you'll allow."

"But I don't quite understand," said Harding. "Where did this idea about the 'fantom engine' originate? Nobody believes in ghosts these days."

"Didn't you ever hear how the Olney Express ran head-on into a wildcat engine about ten or twelve years ago?"

Harding shook his head.

"The brakeman told us they'd never had an accident in the cut," cried Post.

"It was before they put the block signals in," explained Jackson. "There hasn't been one since then. It happened just around the curve in the cut—the same place where we stopped to-night—and last night.

"The Olney Express was late, and the engineer was making up time. He saw the headlight coming and tried to stop, but he ran right into the engine. There wasn't nobody on her—she was running wild.

"The engineer of the express was killed, and the fireman died the next day. He just got his senses long enough to tell the story of the accident. He saw the engine, too."

"It wasn't long after that that Matt Wales saw an engine coming right for him. He threw on the brakes, but when the train stopped, there wasn't any engine there. It shook him up considerable, but he stuck to his train, same as Mr. Pratt done. And the next night—Wales saw it again.

"He died in the ambulance they got for him at Olney. I tell you, Mr. Harding, I don't want to see that engine. You see it—and it isn't there to see." The fireman shuddered.

"I don't mind the things you can get ahold of," he said. "I ain't afraid of man or beast, if I've got a chance for my life. But—well, there was Jack—"

"Never mind the others," interrupted Harding. "Let's hear about Pratt. You didn't see the headlight last night—or to-night?"

"No, I didn't, thank Heaven!" said the fireman fervently. "Poor Joe! 'I heard him yell to-night, but before I could get to him he was out of the cab and runnin' ahead. Then he turned around and came tearing back, only to fling up his arms and fall in a heap on the track."

"So that's how he happened to be lying just ahead of the pilot," said Post. "I couldn't figure out why he hadn't been run over if he had been thrown out by the shock of stopping so suddenly."

"Is there anything else, Mr. Harding?" asked Jackson. He had been getting more and more uneasy, and seemed in haste to be gone.

"Nothing, thank you," returned Harding, "except that I may want to ask you some other questions to-morrow. I'll have to get the superintendent's permission, to take this up, I presume."

"But you'll do all you can for Joe, won't you?" the fireman asked pleadingly. "Poor Lou — that's his daughter — she'll take on awful if they fire him, sir."

"I'll do my best," promised Harding, and Jackson took his departure, declaring he stood ready to lend all the assistance he could.

"Well, Jimmie, what do you make of it?" Harding leaned back in his chair and regarded his friend with wide, interested eyes.

Post shrugged his shoulders.

"Jackson is off his head," he returned. "He's been bitten by the superstitious bug. Pratt is undoubtedly crazy, and ought to be locked up. To have a man like that in charge of human freight is nothing less than a crime.

"'Fantom engine,' indeed! Fantom rot! I've heard of a man seeing pink armadillos and plaid elephants, but never the ghost of an engine."

Harding took out his watch, looked at it, and rose.

"That's your opinion, is it?" said he. "Well, I'm sorry; but I can't agree with you—at least, not about Pratt. He's as sane as you or I. He saw something—the question is—what?"

"Ridiculous!" snorted Post. "How could he see anything when there was nothing to see? Jackson admits that the track was clear last night, and we ourselves know that it was to-night.

"The cut at the mouth of the tunnel is so narrow that it couldn't have been anything beside the track. If there is a path down the rocks, it would be too steep for an engine to climb, Rus."

Harding smiled.

"That's all right, Jimmie, as far as it goes," he returned. "I'll grant you that nothing could have been on the track without our seeing it to-night. Yet something did get away. I'm going to find out what that 'something' was."

"I wish you joy in the job, then," said Post skeptically. "Probably it was an aeroplane, carrying a headlight, and just as soon as Pratt saw it the aviator flew away."

"All right, laugh if you will," retorted Harding. "It's getting late, and I'm going to bed. I've got a hard day's work ahead of me to-morrow."

He was up early in the morning, and immediately after breakfast called upon the division superintendent. As he had expected, he found that gentleman somewhat perturbed about the occurrences of the last two nights; and, although he was inclined to be a trifle reserved at the beginning of the interview, he soon thawed under the influence of Harding's shrewd observations and the obvious interest he showed in the case.

"I am inclined to let you and your partner try your hands, Mr. Harding," he said, after Harding had emphatically declared his implicit belief in the engineer's sanity. "In fact, I had just telephoned to your hotel for you, when my clerk told me that you were waiting to see me.

"Miss Westmore rang me up early this morning, and urged that I should have a

talk with you before proceeding further. She is a relative of mine, and seems to have great faith in your ability.

"Joe Pratt has been in our employ for a number of years, and we have always found him careful and reliable. He is honest, steady, does not drink, and keeps good company. His daughter is a nice little girl, and thinks the world of her father.

"I should be sorry to think that he is suffering from hallucinations; and yet, until I have something to go upon, I cannot well think anything else. This supernatural business is all bosh."

"The belief that a doomed man sees the 'fantom engine' is then current among the men?" queried Harding.

The superintendent laughed.

"I believe so. But you may be sure it is confined to the shops. If any of the officials were to question the men, he would undoubtedly be assured that they had never put any faith in the stories."

"What about Matt Wales? I understand that he saw this fantom twice running, and died immediately afterward."

"Matt Wales was crazy. His wife had died very suddenly, and I think he never was the same man after it. Then, too, his son was a disappointment to him, and he brooded over his domestic troubles.

"You know how a superstition will cling, once a foothold for it has been established. Wales was an ignorant, uneducated man, quite different from the general run of engineers; but he had worked his way up by sheer tenacity of purpose, and there was little about an engine that he did not understand thoroughly.

"But, as far as Pratt is concerned, I think he would put no faith in any bogy business. I can't reconcile his words last night with what I know of his character. I shall be mighty glad if you will get to the bottom of it, though, frankly, I don't see how you expect to go about it.

"In addition to my regard for Pratt personally, I believe that, in letting you take up this case, I am acting in the best interests of the road. We are not a large corporation, Mr. Harding, and competition is very keen.

"You can readily see that if this superstition spreads it is going to hurt us. Once let the public get nervous about traveling over our line and our business is going to fall away to nothing."

Harding nodded slowly.

"I see your position," he said.

"Now, I have heard of the work you and Mr. Post have done in just such puzzling cases as this," continued the superintendent, "and, while I believe that you have undertaken an enigma this time, I'm willing to have you try to solve it, and shall pledge you a substantial fee if you succeed in finding out what Pratt really saw. Like you, I am loath to believe him crazy, or to think that his 'ghost' was really the image of a diseased brain."

"I am willing to take the case on a contingent fee," returned Harding. "No pay unless we are successful. The only thing I want is your cooperation. I shall have to call upon Jackson for assistance. He leans toward the ghost theory; but I believe I can get some help from him, nevertheless."

"Use Jackson all you can," agreed the superintendent. "He's going to marry Lulu Pratt, and he's naturally interested in her father. When young Wales—Matt's son—went to the bad, we gave Jackson his place on Pratt's engine, and he's getting along very well.

"Good morning, Mr. Harding, and good luck to you. I hope you will keep me advised of any progress you may make."

During the rest of the morning Harding was very busy. He held a long conference with Jackson, and also with the engineer who was to take the unfortunate Pratt's run.

Then he paid a visit to Pratt's home, but the old man was in such a precarious condition that the physician in attendance would allow no one to enter.

"You see, he is firmly convinced that he saw this 'fantom engine,'" explained the doctor, "and he believes that it foretold his death. Unless I can rid his mind of this idea, I cannot be answerable for the consequences."

"I am trying to prove that he saw no such fantom," said Harding. "Can you, will you, allow me to circulate the report that Pratt is better, and will make his usual run on the express to-night, instead of the man now in charge of the train?"

The physician was puzzled, but when Harding had explained his motive for making such a singular request he not only acquiesced, but even agreed to help personally in the deception.

"And now, Jimmie," said Harding, when he had rejoined his friend at the hotel that

afternoon, "we have our work cut out for us. The first thing is to see about hiring an automobile."

"What do we need an automobile for?" asked Post curiously.

Harding gave a provoking laugh.

"You made fun of all of my theories, and I'm going to leave you in doubt," he answered. "But I'll tell you this much. There is a road over the hills back of Olney that has a continuation in a narrow path over the top of the tunnel and along the edge of the cut, through which the railroad track runs. We are going up there this afternoon to await developments."

Late that afternoon a small but stanch automobile might have been seen wending its way along the hilly road back of the city. It was occupied by Harding and Post, investigators, and a chauffeur. The latter wondered where they were going, but wisely asked no questions.

He stopped his machine and let his passengers out about a mile above the curve in the railroad cut, and then drove back to the city

"This is going to be a pretty ticklish job, Jimmie," said Harding as they walked along together. "We had to come up here early because I wasn't sure whether I could find the right place in the dark. I guess our man is sufficiently familiar with the surroundings to come at any hour, but I fancy he won't show up for some time yet."

"Our man?" inquired the mystified Post.

"Certainly. That is, I hope so. I also have reason to believe that he will try his little game again to-night, because I have conscientiously circulated the report that Joe Pratt is going to take his train through, as usual, although the poor fellow is really in bed, and the doctor despairs of his life

"Now, I want you to keep your eyes open, and your mouth shut. If you see anything unusual, take it all in; but don't say a word. I can't be certain of the exact spot where he will appear, or if he will appear at all; but I think I'm right.

"I'll stay in one place and you in another, and we'll nail him some way. Don't, for your life, let him get away. After the train has passed, grab him and hang on. Don't let him give you the slip. But, above all, don't lay a finger on him until the train has gone by the place where he is. Then collar him and yell for me. I've got a coil of rope in my pocket, and we'll truss him up.

"If I'm nearer him than you are, I'll do the collaring, and you come and help me out. Is that clear?"

"It's all clear, except who 'he' is, what he's going to do, and what in thunder the whole thing means," said Post, a trifle ruefully. "You might give me a hint."

Harding laughed.

"I'll tell you all about it when it's over," he said. "I don't want to give it away until I'm sure that I'm right. Now, you stay here."

He drew Post into the shadow of a tall rock, about a hundred feet from the edge of the cliff, which fell in a sheer drop to the mouth of the tunnel.

"This is an excellent hiding-place," he added. "I'll go on a little farther. Keep absolutely still, remember." With a wave of his hand, he vanished among the trees.

Post stared amazedly at the spot where his friend had disappeared.

"Here's a go!" said he. "I wonder how long I'll have to decorate the landscape before the show begins? And I'd like to know what's afoot anyway. Confound Rus and the mysterious 'he'!"

He sat down behind the big rock and made himself as comfortable as possible by leaning his back against it. In the west, the sun was setting in a sky flecked with rose and gold.

The towering hills, at the foot of which the city of Olney lay, were tinted in gorgeous hues, but in the shadow of the great trees that hemmed in the rock on all sides, twilight was already beginning to fall.

It was very still, very desolate, very lonely. Post was not a fanciful person, but the long, dusky shadows, the intense stillness, unbroken even by the call of a bird, somehow made him uneasy. Darkness came swiftly. The tall, almost leafless trees sighed above his head.

From somewhere, far to the right, came the harsh, disagreeable scream of a screech-owl. It seemed like the cry of a child in terror or pain. Post stirred impatiently. He wondered where Harding was and what he was doing all this time.

What was that?

Surely something more than the noise of the wind in the branches!

Post sat bolt upright, and then cautiously rose to his feet, peering out from behind the rock. That shadow—the one under the big maple that he had been idly watching—had moved!

It was no longer a mere, impalpable shadow, but the figure of a man—a man moving silently, stealthily, toward the edge of the cliff over the tunnel entrance.

Was it Harding, or the mysterious "he"? Post could not tell. He longed to call out, but he dared not—dared not move a step, lest the sound of his footfalls convey a warning to the intruder.

The shrill scream of a whistle rent the air. The train was entering the lower end of the cut. The green light of the semaphore spelled clear track ahead.

Trembling with excitement and anticipation, Post waited. What was the man about to do? What strange drama was about to be enacted? From Post's position, the track itself was invisible, but he had a clear, unobstructed view of the man, who was moving quickly about, apparently engaged in manipulating a rope.

With a roar, the train swept around the curb, traveling at high speed; and then—a low, exultant laugh came from the edge of the cliff.

The whistle sounded; there was a grinding of brakes. Surely that had been Harding's laugh! But at what had he laughed? Was it Harding?

The young man did not hesitate. He had had his directions and he must follow them. Scarcely had the strange sound died away, when he impulsively started forward, his foot caught in the tangle of vines and underbrush, and he plunged forward on his face, amid a loud crackling of twigs and branches.

An agonized shriek came to his ears, a shriek so full of horror and fear that his blood seemed to run cold.

He struggled to his feet, just in time to see a dark body hurtle through the air, over the edge of the cut and whirl down—down—down, into the blackness beneath!

Sick at heart, trembling, appalled, Post crawled unsteadily to the brink of the rocky wall and leaned over. The train had come to a stop at the mouth of the tunnel. Men with lanterns were running back and forth.

What was it—who was it? Who had gone down to such a frightful end? Post strained his eyes. At first he could see nothing; but after a moment, he made out the dim outlines of a shapeless mass that lay huddled in the narrow space between the wall and the rails—a mass that did not move when the trainmen bent over it.

Post found his feet and dashed back along the way Harding had gone that afternoon. Twice he stumbled and fell.

The low-growing branches of the trees lashed his face, but the only feeling of which he was conscious was that he must get down to the tracks, to that sinister heap lying there. He must know if Russell Harding had met that hideous fate.

"Jimmie!" The call halted him in his tracks.

"Jimmie!" came the voice again, and a moment later Harding was at his side!

"Rus!" The emotion of seeing his friend was so great that for an instant Post choked. He forgot the man who had plunged headlong to destruction.

"Who was it?" he whispered.

"Young Wales, I think! Great Heaven! What a terrible death! Come, Jimmie, there's a path just below here. We'll go down to the train. Don't ask me anything now; I've made a mistake, a miscalculation. I couldn't get to you, although I tried. I was too far along."

In silence they made their way down the steep, winding path that led to the tracks. It was a hazardous undertaking, for the thick darkness obscured the way; but they finally reached the bottom, and, walking along the ties, got aboard the last car of the train and walked through the half-empty coaches to the baggage-car.

There the superintendent met them.

"This is a bad business, gentlemen," he said gravely. "I'm afraid you've been hurt," he added, as he noted Post's scratched face and bleeding hands and the torn and disordered clothes of both the partners.

"I'm all right," Post hastened to say. "I thought for a moment that it was Harding who had gone over the cliff." He shuddered slightly. "It was so dark that I couldn't make out the man's face, and as soon as the train had passed and I started for him, he—he—it was too late."

The superintendent nodded.

"Poor fellow!" he said. "They have taken him into the baggage-car. You know, of course, that it was Matt Wales's son?"

"Yes," said Harding. "That is what I thought."

"I was on the train myself—on the engine, in fact," continued the superintendent, "and I don't wonder that Pratt was frightened. I saw that headlight plainly—too plainly. It was no fantom, Mr.

Harding, but the most realistic thing I ever saw in my life.

"For Pratt to see it as I saw it, and then find nothing tangible to account for it, must have been a terrible shock.

"As we came around the curve, the light flashed full in our eyes. The engineer had told me that he had his directions from you, and so he whistled and applied the brakes. We heard a crash and a terrible cry on the track ahead, and I sent the brakeman to investigate.

"I understand, of course, that Wales was in some way responsible for all this, but I confess I am still in ignorance of how he produced the illusion."

"If you will wait a minute," Harding said, "I think I can make it all plain to you." He descended the steps, and a moment later his voice rang out:

"Mr. Cleve—Jimmie! Here!"

They found him standing a few rods ahead of the engine, holding up something that flashed in the light of the lantern Jackson had lifted over his head.

"What is it, Rus?" cried Post.

Harding held out a hollow square, seemingly of wood, with splintered pieces of glass clinging to it here and there.

"Do you know what it is?"

They did not, for the moment.

"The frame of a large mirror! This is what caused Pratt to see the 'fantom.'

"By means of a rope and pulley, Wales lowered the mirror over the edge of the cliff, so that the headlight of the approaching train would be reflected directly into the engine cab.

"Then he quickly pulled it back, so that it should not be struck. He kept it concealed somewhere in the bushes on top of the cut."

The superintendent gave a cry.

"But what—what was his object in doing this, in jeopardizing the lives of the passengers and train crew?"

Before replying, Harding led the way back to the cars, which were ready to start on their interrupted journey to Olney.

"I learned this morning that young Wales believed Pratt to be responsible for his dismissal from the road. He was in the habit of drinking heavily, and when Pratt reported his last spree, a report which led to his being summarily discharged—he swore he would get even.

"His dissolute habits had also caused Pratt to forbid his daughter Lulu to see Wales, and the girl herself refused to have anything to do with such a character.

"In his anger at Pratt and at Jackson, whom he believed to have supplanted him in his work and also in the affections of the girl he loved, Wales conceived the idea of ruining the old man by playing upon his imagination.

"The simple apparatus which he rigged up produced a perfect illusion of another train in the cut, and knowing very well that Pratt shared, to a certain degree, the superstition current in the shops; that the man who saw the 'fantom engine' twice running was doomed, Wales resolved to shock Pratt and Johnson and encompass their dismissal."

"And that his cowardly design failed is entirely due to you, Mr. Harding!" exclaimed the superintendent.

"My only regret is that I was unable to prevent the tragedy," replied Harding. "I did not dare to get too close for fear of scaring him away.

"I spread the report that Pratt was better, knowing that Wales would be more than likely to make a final attempt at once, as he would count on the old man's mind not being strong enough to stand another shock. If Wales had known that Pratt was ill at home, he would not have produced his ghost again."

"But how how did he happen to—" the superintendent paused.

"He must have heard Post fall, and been so startled that he lost his footing and toppled over into the cut."

"Olney!" shouted the brakeman.

"Will you come to my office in the morning, Mr. Harding?" asked the superintendent as he rose. "I shall have word sent to Pratt at once, and I believe that as soon as he knows the truth, and that no supernatural agency produced the vision he saw, he will take a turn for the better.

"I am mighty grateful to both of you for what you have done, and the gratitude of the road will take substantial form."

"Was Wales crazy, do you think, Rus?" inquired Post.

"He might have been unbalanced, or simply crazed by drink," replied Harding. "He has been a bad egg ever since he was a boy, and sank lower and lower, until no one would employ him. I think it is more charitable, though, to believe him mad than to assume that he was actuated simply by a wild desire for revenge."

Told in the Roundhouse.

BY WALTER GARDNER SEAVER.

HERE'S one for the tallow-pots. What would you be inclined to think if you had been boosting the gage pretty hard and suddenly looked out ahead to see the stack of your locomotive glowing red? If you can imagine how you would feel under such conditions you have some idea of the thoughts that went chasing through Donald Jones's head when he made that startling discovery.

Mr. Seaver also gives us some other tales of sudden surprises which end rather unpleasantly for the persons who were taken unawares. They are the kind of yarns you hear around the yards. The sort of stories that railroad men want to hear and love to tell.

An Engine Smoke-Stack That Changed Color; a Green Wiper Who Was Initiated, and the Peculiar Difficulties That a Wandering Engineer Discovered.

"DID you ever meet Donald Jones?" asked Watson as Spence came in and joined the gang around the stove.

"It seems to me that I have. Where did he run?"

"He fired out of old St. Joe for a long time, and then got set up. The last time that I heard of him he was riding on the right side."

"A medium-sized, smooth-faced, rather good-looking fellow?"

"He was all of that, and was also a good dresser. When he came off his run you would never suspect him of having just left his engine after a hard day's work, shoveling the black diamonds."

"I think I know the man. But, no matter. What about him?"

"You know Dennis, who has been firing the ten-spot, that crazy old switcher that they have been using here in the yard when she should have gone to the scrap-heap ten years ago, has been given a road run, and goes out to-night on the 527."

"So?—hits the iron on a way-freight. Well, he deserves good luck; for any man who can stick to the old No. 10 and keep her hot as long as he has deserves all that is coming to him. But what's that got to do with Donald Jones?"

"Not very much, it is true; but in many respects Dennis reminds me of Donald. What I started out to tell you was that Dennis, getting a road run, reminds me of Donald, who also went on the road from the deck of a switcher; one of these bally old saddle-tank mills that causes a runner to forget his religion nine times a day. But Donald was exceptionally lucky, for he got a passenger engine from the jump. He was no tenderfoot when it came to shoveling coal, for he was one of the crack firemen on the Burlington until the strike of 1888 caught him and put him down and out.

"Frank went to the Chicago, St. Paul and Kansas City, and was firing a switcher in the Main Street yards of St. Joe, when he was given the road-engine; and what he didn't know about firing an engine was mighty little. The boys swore that he

could tell the moment his pick struck a lump of coal, just where it was from—whether it was Leavenworth, Richmond, Rich Hill, or Fort Scott coal. I do not believe that he was really such an expert as all that; but the fact remained that he could keep the needle on the mark, up hill and down, and get over the division with a smaller coal consumption than the majority.

"Just about the time that Donald was given this passenger run the superintendent of motive-power, or some other man who stood pretty well up toward the top, conceived the idea that if the smoke-stacks of all engines on the road were painted red it would not only be a novelty, but, being somewhat in the nature of a freak, would cause various and sundry comments from all sources, with the result that the road would consequently come in for some extensive and cheap advertising.

"Busenbark was passenger-traffic manager at the time, and he could give the press agent of a minstrel show cards and spades and then discount him when it came to turning out unique and wonderful advertising stunts.

"Now, Busenbark may have been responsible for this red-stack stunt, and he may not. Charlie Berry, assistant general freight-agent at St. Joseph, swore that Busenbark did not know anything about it; and whether Charlie was in the play that got Frank into the snap is not known to this day, though at that time Charlie was something of a practical joker himself.

"HERE'S YOUR RED-HOTS! NICE, FRESH RED-HOTS!"

"But, no matter who was responsible, the fact remains that the engine which Donald was called to take out was just from the shops, and came into St. Joe pulling freight, in order to get her legs under her, about eight o'clock at night.

"Owing to a scarcity of motive-power, she was carded for the night run on No. 3, from St. Joseph to Kansas City, due to leave about 3.30 A.M. Donald was called an hour before leaving-time, and in the darkness he did not notice the ensanguined hue of the stack. He swung into the work, and was more intent on learning the old girl's whims and whether she liked a light or heavy fire best, or whether she preferred bank to level firing. By the time he had these points well worked out it was daylight, and the engine was on the Kansas City Northwestern tracks between Leavenworth and Kansas City when the sun concluded to put in an appearance.

"Now, Donald's engineer, who, I think, was named McDowell, was keeping pretty close tab on Donald.

"Finally, Donald swung up on the fire

man's box and looked ahead. McDowell, who was watching him, while apparently having eyes for nothing except the track ahead, swears that Donald looked, rubbed his eyes, then looked again, and then hopped down to the deck and, crossing over to Mac, said:

"'What's the matter with the stack?'

"Mac looked ahead, and then, apparently much surprised, said:

"'Great Scott! Donald, what have you been doing to her? That stack is red-hot, that's all.'

"'Red-hot nothing! How could a stack twenty feet away from a fire-box and mounted on the top of a smoke-box at that, get red-hot?'

"'Don't know, Donald; but she's red hot, all right, and it's up to you to explain. I see your finish, old man.'

"'Oh, go tell that to the marines! What do you think I am—a corn-field fireman?'

Donald Makes a Discovery.

"'I have always understood that you were some nuts of a fireman; but when you throw so many hot cinders out of the stack on your first run that it makes the stack red-hot, why, there's bound to be some explanation. You know that the old man is cranky about anything that concerns the motive-power; and when he finds that the 25 came into Kansas City on her first run with a red-hot stack, why, there's going to be something doing—that's all.'

"Now, Donald Jones was pretty well up to all the tricks that are likely to be perpetrated on a green fireman, and he cudgeled his brains for some time to find an explanation of what kind of a job had been put up on him.

"Just as they were coming into old Wyandotte, and McDowell had shut her off for the station-stop, Donald threw open the cab window and sailed out along the running-board, his eyes popping.

"As the engine came to a stop, he stepped onto the steam-chest, and from there to the pilot-beam. He could not reach the stack from this point, but he could see that its carmine hue came from paint and not from heat.

"He said nothing, but climbed back into the cab; and when Mac asked him if he had found out what was the trouble with the stack he merely nodded and said nothing. He had set it up that Charlie Berry and some of the boys at St. Joseph had put up this job on him, and he swore that he would get even.

"At Kansas City Mac had put the con and the rest of the train-crew wise. The con wired Berry at St. Joe to keep up the play. The 25 was doubled back on No. 2, and as she pulled into the Main Street depot at St. Joseph the newsboys were yelling: 'Here's your red-hots! Nice, fresh red-hots!' But they didn't get a rise out of Frank.

"Engine 25 had been cut off and set in on the spur north of the depot, and No. 1 had come in from Des Moines while Frank was washing up. She was pulled by No. 26, and her stack, too, was a vivid red.

"Frank looked at her, then at the stack of his own engine, and, throwing aside his towel, swung down, crossed over to the 26, and, hailing the fireman, said:

"'Cully, I don't know your name or where you hail from, but I want to put you wise to the fact that the old man won't stand for firemen who fire so badly that the stack gets red-hot.'

"Donald dropped down and faded away. The fireman of 26

IT WAS NOT WITHOUT CONSIDERABLE DAMAGE TO HER TEMPER.

hailed McDowell, and said:

"'What's the matter with your fireman? Been hitting 'em up too much?'

"'No, he's all right,' Mac replied, touching his forehead. 'Just a little so-so.'

"'Poor man!' the fireman muttered as he gazed after the sturdy figure swinging down the street. But no one ventured to mention anything to Frank about throwing red-hot cinders out of the stack after that."

"That reminds me," Hank remarked, "of the early days on the Iron Mountain. During the later seventies and the early eighties there was a lively gang running on that road, especially on the Belmont division from Bismarck to Belmont.

"YOU CALL THAT PLAYIN' MARBLES, EH?"

"Fredericktown was then the division-point between St. Louis and Belmont, and, though it had a population of only two or three thousand, a large proportion of these were railroaders — mostly young fellows and full of the Old Nick.

Breaking in the Beginners.

"The height of ambition of the average farmer lad in Madison County was to get a job railroading, and the ranks of the wipers at the Fredericktown roundhouse were constantly recruited from this source. Some of the boys failed to make good; but, as a rule, those who entered the service of the company as wipers gradually got on the road as firemen, and, with few exceptions, they turned out to be good men.

"It was only natural that all kinds of tricks would be played upon the beginners, and the stunts that crowd couldn't think of to make life a burden to the embryo fireman were not worth considering.

"O. A. Haynes was master mechanic, and the main shops were at Carondelet, a suburb of St. Louis. Haynes was not very favorably impressed with the capacities for devilment that were exhibited by the gang, and whenever he had an opportunity he came down hard on the offender. Jerry Phalen got ten days once for causing a kid wiper to spend half a day of the company's time chasing around the town in search of a left-handed monkey-wrench, he having assured the lad that it was impossible to set the valves on the left side of 30 without this wrench, and unless the valves were set the engine could not go out on her run.

"The 30 was pulling passenger on the north end between St Louis and Fredericktown, and she was due to leave on No. 2 about one-thirty in the afternoon. It was about eight in the morning that he sent the kid out on the chase.

"Well, Jerry was making good money and the lay-off did not phase him to any great extent. He dead-headed back to Fredericktown on No. 3, and put in the time during his lay-off in studying up tricks to be played, and sending the wipers on all kinds of impossible stunts.

The Eagle Eye His Hero.

"A lad of about sixteen, whose parents resided at Mine La Motte, was inoculated with the railroad fever and was determined to become an engineer. He had hung about the roundhouse, lending a hand whenever occasion offered, until one of the wipers having been sent out firing, caused a va-

cancy and the roundhouse-foreman gave the kid the vacant job.

"Now, in the eyes of this boy, the man who rode on the right side of an engine pulling a passenger-train at the reckless speed of thirty miles an hour was a bigger man than General Grant, who was then President of the United States, and, consequently, some 'punkins,' while the fireman who kept her hot, ranked head and shoulders above a United States Senator. Therefore, the faintest wish expressed by an engineer was law and gospel to this lad.

Getting the Goat.

"He was a hard worker, anxious to please, and determined to make good, but all this was not known to the gang until later, else his initiation might have been less strenuous.

"The kid got his job just about the time that Jerry drifted in from St. Louis on his lay-off, and, of course, was at once marked down as a likely victim. Bob and Joe McQuade, engineers, and a number of firemen were in the roundhouse, some of the firemen were rubbing up the brasswork on the engines while the hoggers busied themselves tinkering about their pets.

"I have previously said something about the goat that used to hang out around the roundhouse. Billy came strolling along the edge of the turntable-pit, keeping the gang on the keen edge of expectancy of seeing him tumble overboard but managing to keep on the right side all the time, and as soon as Jerry spied the goat, an unholy desire seized him to press that goat and the kid into a stunt that would make sport for the gang.

"So he called the kid and told him to catch Billy and take him over to the Railroad Hotel and tell the landlady that Jerry Phalen had sent him to get the harness and the little express wagon, and when he had Billy hitched up to drive him to the roundhouse and they would tell him what to do.

"Now engine No. 21 had just pulled out of the roundhouse to go out on her run, and the wipers had just finished washing out the pit in her stall. These pits were laid with brick floors—cement not then having come into general use for these purposes—and the foreman was particularly cranky on the subject of dirty pits.

"The kid caught the goat and managed to pull him across the street to the railroad hotel. Now, as at least seventy-five per cent of the railroaders who ran in and out of Fredericktown boarded at this place, the landlady was inclined to let them have the moon if they wanted it and she could manage to get it for them, so when the kid and the goat hove in sight at the alley-gate, and the kid had managed to get Billy inside, not without considerable exertion and determination on the part of the kid, she tumbled at once that the gang had something on and that there would be something doing in short order.

"So, when the breathless lad told her what was wanted, she not only produced the articles but assisted in harnessing Billy, despite his protestations. But it was not without considerable damage to her temper and a long rent in her red-flannel petticoat, that the angry goat was at last securely harnessed in the shafts.

"Unknown to Johnnie, the kid, and the widow, their performance of harnessing the goat had not been without witnesses. As soon as the kid and the goat had disappeared in the alley back of the hotel, the back yard of which was surrounded by a high board-fence—too high to see over—the gang promptly strolled across the street and lined up alongside the fence where convenient cracks and knot-holes afforded an unobstructed view of the rear yard of the hotel.

"The gang kept quiet with difficulty. It was an exceedingly hard task to witness the ground and lofty tumbling indulged in by the widow, the kid, and the goat without shouting.

"When Johnnie showed up with Billy duly harnessed and banged over the rails into the house, the gang was innocently engaged in swapping yarns.

Obeying Orders.

"Jerry took the lad and his goat-outfit back of the roundhouse to the cinder-pile and told him to fill up the wagon with cinders, haul it into the roundhouse and spread it over the floor of the pit in the vacant stall about two inches deep and to work fast, for it was necessary that this floor should be covered before another engine was set into that stall. The men needed the cinders to stand on and avoid wetting their feet while the boilers were being washed out.

"Jerry impressed upon the lad the necessity of working quickly and to have the job done if possible before the foreman returned.

"Billy was inclined to be obstreperous,

but Johnnie was not made of the stuff that would lie down to a billy-goat. In a short time he had the goat pulling the wagon as sedately as any old mule. The boy worked fast, and when the foreman finally broke away and wandered over to that part of the house he was dumfounded and speechless for a moment. Here was the floor of his pit, that he had always kept as clean as a parlor, covered with cinders.

"Then Johnnie with his goat-wagon came in with another load which he proceeded to dump into that pit.

"I SAW HER DROP SOME OF IT INTO A CUP OF COFFEE.'

Johnnie Gets Another Goat.

"'Here, what are you doing there?' he yelled.

"The kid looked up. Without pausing in his work he quietly ejaculated, 'What d'ye think! Playing marbles!'

"'You call that playin' marbles, eh?'

"The foreman seized the lad by the collar of his jacket; lifting him clean from the floor with the toe of his number ten brogans, he sent him flying through the air.

"Engine 17, a mogul, was in the next stall. On her pilot-deck she carried a barrel filled with dry sand. Johnnie described a graceful parabola through the air and came down in the barrel doubled up like a jack-knife, his head and feet alone appearing over the top.

"This was too much for Jerry and he intervened:

"'That'll do you, now, Murphy. Don't touch that boy again.'

"Then Murphy turned on him. He called Jerry everything but a gentleman, threatened to report the matter to Haynes by wire with a request that whenever Jerry was laid off in the future, that Haynes should see to it that he was locked up some place where he would be unable to play any tricks during his lay-off.

"'Well, outside of all that I'm a good fellow, ain't I? Have a cigar,' said Jerry, after Murphy's trimming.

"Murphy glared at him while the surging blood congested in his face until it was almost purple and the veins on his neck stood out. He gurgled a moment in a futile effort to say something and then turned on his heels and strode away, while the gang yelled and howled until the city marshal, who was at the depot awaiting the arrival of No. 1 came running at full speed to see what had broken loose in the roundhouse.

"From that day, Johnnie was the especial protégé of the enginemen. He soon

went to the left side, then to the right, and is general superintendent of one of the trans-Missouri lines."

"Hello, boys, what's doing?"

Watson swung around in his chair.

"By the nine gods of war, if it ain't old Jack Fraser!"

"Right! But what's doing?"

"Nothing much. Everything seems to have gone to the bowwows. Why? Want a job?"

"Not to-day, Mike—some other day, perhaps."

"Where are you from?"

"Running out of Santone."

"Good run?"

"Oh, so, so. Country's hot and dry; the sand-flies something fierce at times; even boxes run hot standing on the sidings. Never felt such heat."

"That's all right, Jack; but this crowd's been on earth almost nine months. Fill your pipe and spiel. I know you've got a story somewhere."

Jack Fraser's Story.

"Well, Mike, to tell the truth, I had an experience shortly after I began running down there that I will not soon forget. Of course, little Willie was only a looker-on in Vienna, but she was sure hot stuff while she was running."

"I'll bet a cookie there's a woman in it." Spence muttered.

"Safe bet; you win," said Jack.

"There generally is," said Fox.

"Sure. Else how would a billy-goat get a red-flannel petticoat to flag down the St. Louis Limited—one of the Pennsy's crack trains?"

"That's all right, Watson," Fox replied. "You can bet your bottom dollar that a red flag stops me at any time and any place."

"Humph! Now I know why you have never got married."

"Good boy. You know more than any one else, then. But this is not listening to Jack's story."

"Well, then, for pure, cool, unadulterated nerve, the fellow that I am going to tell you about takes the whole bake-shop and then some. Nine men out of ten would have gone up in the air and began shooting instead of coolly lying down and waiting until he got the guilty party dead to rights. It was only by an accident that I happened in for the last act of the drama.

"We were going west, pulling fast freight, when the old girl got tired, lifted her trucks, climbed the rail, and laid down gently on her left side in a little three-foot cut on the outside of a curve between Sabinal and Uvalde. It doesn't often rain in that country, but when it does it rains and then *rains!*

Into the Ditch.

"When the old girl began to swing, I yelled to Hank Busby, my fireman, to hit the grit. I just caught a glimpse of him swinging out of the gangway on the left side as I went overboard on the right. I lit on my knees, rammed my head in the soft, muddy bank, turned a somersault, and lit on top of the bank still rolling. I happened to be on the down-hill side, and the hill was pretty steep, so I kept on going for the very good reason that I couldn't stop.

"I landed in the bottom of one of them infernal arroyos that never carry water except in rainy weather. I got to my feet, and my first impression was that it had been raining box-cars, for the way the twenty boxes in that train were scattered over the landscape was scandalous.

"How they managed to be strewn around so promiscuously, and none of them catching me, is a mystery.

"I climbed up the hill, and when I got back to the right-of-way I saw the way-car still on the rails, not even scratched, and the con was still perched up in the lookout.

"I wondered why he did not get out of that, but just then the rest of the crew came straggling in. Busby was the only one that was hurt, and his left hand and arm were badly scratched and torn where he had plowed through some briers. The three brakemen had been sitting together on top of a box car when the car rose right up without any warning and dumped them all out on the prairie among the buffalo-grass and cactus.

The Con Gets Caught.

"We yelled at the con to wake up and get out of that, and he said that he couldn't unless we came and helped him pry himself loose.

"We hustled into the way-car and climbed up into the lookout. The con had been sitting with one leg bent back between his

"NOW MOUNT THOSE PONIES AND GIT BOTH OF YOU!"

chair and the edge of the coaming, and the shock had twisted his chair and bent the iron standard so that the corner was jammed into the wooden coaming, catching a fold of the con's trousers and driving it into the wood.

"The cloth was strong, and he was held as securely as though he had been nailed there. We had to take a knife and cut a section out of his trousers-leg before he could get away.

"We had clean forgot about flagging the wreck, but that was the first thing the con thought of, and the way that he jumped those brakeys was a caution. They hunted up their flags and fuses and hustled out. There was nothing due there for two mortal hours from either direction, but that con wasn't going to take any chances.

"I went ahead, and looked at the engine. The old girl was still purring, but, as I had shut the throttle before I jumped, she wasn't tearing up the soil any. She had rammed her nose into the soft, muddy bank of the cut, but as far as I could see, aside from smashing the cab windows on the left side, she was apparently all ready to go whenever she was set back on the rails.

Foraging for Food.

"There was nothing for me to do, so I began to think of foraging for chuck. I started for a grove of mesquit about half a mile away, and just beyond I found a 'dobe house. I knocked at the door, and a woman came in answer to the summons.

"Before I had time to say anything about grub, she squealed:

"'Oh, thank Heaven, you have come! My husband has taken poison and is dying! I have no one to leave while I go for help. Will you stay with him and watch while I go for help?'

"There was nothing else to do, so I answered that I would. She led the way into the house, where a man was lying on the floor, with his head on a pillow, with a quilt thrown over him. His face was deathly white, great beads of sweat stood on his forehead, and he was breathing deeply and heavily in a way that looked to me as though each breath would be his last.

Plot to Poison.

"The woman went. A moment later I heard the clatter of a pony's hoofs. I sat down and listened to the sound as long as I could. Then I turned around to look at the dying man. He was sitting up. As he caught my eye he said:

"'Quick! Hand me that club behind the door. That woman will be back here in a few moments, and I want to be ready.'

"I went to the door, and found the club. He laid it beside him under the quilt. Then he said:

"'My wife and a sheep man, living about a mile from here, have become altogether

too friendly, and for some time I have believed that they were plotting to get me out of the way. I have watched her for some time, and a few days ago she brought home a bottle of laudanum. To-day I saw her drop some of it into a cup of coffee while I was washing.

"'She went out to the kitchen to bring in the victuals, and I chucked the coffee out of the window and filled the cup with fresh coffee. Then I pretended that I was going under, knowing that she would get word to the fellow some way. Now, when you hear them coming, cover me over from head to foot and let them think that I died while she was away.' Then stand by, and you'll see some fun.'

"In an incredibly short space of time I heard the *rat-a-rat-atat, rat-atat-rat-atat* of two ponies coming at a gallop. I drew the cover over the 'dead' man. A moment later the woman rushed in at the door, followed by a low-browed, squat, stockily built fellow whose face bore the stamp of a coward and all-around tough.

Disposing of the "Remains."

"I wondered what any woman could see in such a geezer.

"As she came in, she asked:

"'Is he dead?'

"I simply nodded. I couldn't speak. It was none of my funeral, anyway. I noticed the woman look at the man, and a look of exultation showed plainly on his face, though he tried to keep his face lowered.

"They went to the side of the dead man, standing side by side. She tried to lift the quilt, but could not. The man stooped over and lifted it.

"Then the dead man became suddenly very much alive, and the way that he made the shillalah play over that fellow's head and shoulders was a caution.

"When the husband thought that he had welted the man good and plenty, he started after his wife, but she was safely out of doors.

"The husband grabbed the sheep man by the scruff of the neck and pitched him out through the door. Then he dashed a bucket of cold water over him, and as he sat up, gasping and gagging, he said:

"'Now mount those ponies and git, both of you! Don't wait for your traps, for you won't get any; but git and git quick! And don't either of you ever cross my path!'

A Revengeful "Corpse."

"The sheep man scrambled to the back of his pony after a fashion, but the woman had already mounted and was dashing down the trail at a gallop. The 'dead' man looked after them for an instant.

"Turning to me, he said:

"'Stranger, I am mightily obleeged to ye. What mought your business be?'

"I told him that I was a locomotive engineer, and that my engine was on her side at the head of a wrecked train not far away; that I had started out to locate a ranch-house to secure some chuck for myself and the crew, for we could not tell how long we might be laid out there.

"He stretched out his hand, saying:

"'Shake, stranger. I knowed ye was a white man when I fust seed ye. If it's chuck ye want, ye are welcome to what I've got and as much as ye need.'

"He led the way out to the chuck-wagon. We found it well supplied with coffee, sugar, hard-tack, bacon, potatoes, and some canned fruits and vegetables. He hitched up the wagon, and, bidding me mount beside him, drove across the prairie to the wreck, where the boys had begun to consult as to the advisability of sending a tracer after me. The con had started back on a ten-mile tramp to Sabinal to wire a report of the wreck.

"The cattleman unhitched. Building a fire from some of the splinters of the wreckage, he soon had coffee boiling and bacon frying.

"This, with some hard-tack and canned fruits made a meal fit for any one, to say nothing of a gang of half-starved rail-pounders.

"Eat? Say, it was a sin the way we waded into that man's chuck!"

Many an old switchman has to give a smart eagle-eye points before he can get out of town.—Proverbs of an Old Pensioner.

BAKER OF THE BAD LANDS.

BY W. T. PERCIVAL.

A Modern Crusoe, with a Price on His Head, Prepares to Pass a Pleasant Summer.

CHAPTER I.

Baker's Bailiwick.

BAKER had lived the greater part of his forty years in that section of the primeval West which the earliest settlers called the Bad Lands, and which later travelers have dubbed with a more forcible and less polite appellation. Baker, horse thief, desperado, train robber, had learned to love the Bad Lands. He had learned to love them for the particular reason that, on divers occasions, if he had migrated to a more civilized country, he would have run a desperate risk of being made the occupant of a dungeon.

That we may get better acquainted with Baker, let us first get well acquainted with his habitat. Bad Lands is the name applied to the arid regions of the West where there are long, barren, sun-baked areas of hills and ridges broken by numerous gullies and deep ravines. The principal stretches are in the Western Dakota and Central Wyoming.

The big Bad Lands of the western part of South Dakota and east of the Black Hills, is an area of about two thousand square miles. It consists largely of unproductive land that form expansive basins in the plateaus bordering the White and Cheyenne Rivers.

The scenery is wild and wonderful. There are ridges and mesas running to a height of nearly four hundred feet, eroded by the subtle and untiring hand of Nature into all manner of fantastic shapes.

Ravines and cañons cut them into an endless variety of rugged buttresses and pinnacles. This phalanx of serried grandeur is chiefly composed of sandy clay and limestone of a light color. When the sun is shining at its brightest, the bare slopes reflect a light that is hard to penetrate—and wo to him whose eyes are weak.

There is an occasional fall of rain, but the limestone is so very dry and the gullies so deep, the water is sapped up and vanishes before vegetation can establish itself.

However, there are places where the rain falls in abundance and vegetation is as prolific as it is queer. One of those places was an abandoned settlement—one of those many "camps" of the West where fearless pioneers located, thinking that there was nothing to do but dig from the earth the metal that would make them rich. But, like so many similar expeditions, the one that settled on the spot of earth where this story is laid had passed into time.

There was flurry for a while, tents and rude cabins were set up, holes were dug, women suffered hardships that their husbands might prosper, children were born—but there was no gold. As soon as this fact became evident to all, the settlers picked up their belongings, folded their tents, and silently stole away.

Hunted like a wolf, driven from county to county, from hiding-place to hiding-place, Baker at length came to the abandoned settlement. He wandered through its deserted avenues aimlessly, going from house to house—if I may be permitted to dignify the crude, weatherbeaten huts that dotted the side of a hill as such.

Be that as it may, when Baker, driven from place to place by an army of paid pursuers, cleverly evaded them and rode his horse to death in mad flight and finally reached this abandoned settlement, it looked as good to him as the middle of Broadway would look to one who suddenly found himself marooned on a desert isle.

The horse had dropped from under him some miles back, in the early hours of the morning. Baker had ridden that night! He had ridden as few men had ever ridden before!

He knew that his only claim to safety was to put as much territory as possible between him and the men who were pursuing him.

It was a case of driving him into the wilderness. That he realized as the country through which he was passing grew new and strange and the more fertile areas turned slowly into the brown and gray approaches of the great and lonesome region of the Bad Lands.

On the night before, Baker had some sort of a hunch that it was up to him to make one grand spurt. He surmised that his pursuers, wherever they might be, would sleep that night.

He had given them a "run for their money" during the day, and he had found a convenient gulley where there was food and water for his horse.

Of course, none of the occupants knew him when he appeared at a miner's cabin just before sundown and asked for food.

News did not travel fast or far in that country. The story of the hold-up of the Pacific Coast Special, the fastest and smartest train on the C. G. asd G., twelve miles out of Dead Gulch, single handed, by a lone bandit, had not penetrated any faster than the posse that was following Baker could spread the sensation.

"What did he get away with?" asked the wide-eyed, as the news was told them.

"Twenty thousand that was being shipped to a bank in Oregon!" exclaimed the leader of the posse.

"Bills or cash?" asked one fool

"Bills, you jackass!" was the answer "How far could you pack twenty thousand in gold with a posse chasing you, eh? This baby didn't leave no trail of twenty-dollar gold pieces by which we could find him. He got away with the long green and he's got it on him at that!"

"Who was it?" asked another.

"Baker of the Bad Lands."

Then everybody smiled. Baker of the Bad Lands was a name to conjure with in that part of the world. It had been given to him because he knew that desolate region better, perhaps, than any other man on earth except the officers of the United States Geological Survey, or the fossil-hunters who infested the ravines and the plateaus at various times digging for the remains of the animals that thrived there in the Eocene age.

Yes, Baker knew the Bad Lands. He knew that few posses wanted to chase men into their peculiar and uninviting vastnesses. So, when the miner's family had given him a square meal and his horse seemed refreshed, he mounted and cantered slowly along the road until the moon rose over the hill and showed him the way—clear and distinct.

Then he put his spurs deep into the animal's already scarred and bleeding flanks, gave its head a mighty tug with the bridle-reins and urged it to top speed.

"I don't know how far the dogs are behind me," said Baker, half aloud to himself. "They may be on my trail—right back of me—and they may be, God knows where; but if it is a case of horse or man—the man is going to win!"

He dashed on and on and on into the bright night. Ever and anon, he would pull up his panting horse to listen.

Ever and anon, he would urge him to greater speed with spur and bridle-rein. He almost had him winded several times—but that made no matter—that horse had to get him to the farthest point in the quickest possible time.

Once—and only once—the animal stopped still and refused to budge. All of Baker's urging and beating could not break that fit of balking. The horse had made up his mind.

He was not going a step farther until he regained his wind. Baker gave him a chance. He gave him several hours. All that time he stood on his feet and listened—listened with his ears strained for the

slightest sound that might come through the mighty silence of the night.

His right hand rested on the holster of his trusty six-gun. His left held his charger's reins. His eyes pierced the far stretches made bright and perceptible by the moon. He was looking for shadows—but more keenly, he scanned the sky-line of the hills to the west, momentarily expecting that some horseman would gallop silently into view.

Now and then he would relinquish the hold on his six-gun and tenderly press a leather bag that hung from his right shoulder and snuggled under his left side next to his skin.

Although he knew the bag was there, he wanted to be doubly sure. He wanted to *feel* it every little while; he wanted to be certain that it was safe. He wanted to do more than that. He wanted to sort of squeeze its sides and feel the bundle of bills that rested therein.

As he felt them, this time, he smiled. Twenty thousand dollars! Twenty thousand dollars!

Egad! That *was* a sum! That was a haul which should make any hold-up man feel proud! Why, that was sufficient with which to retire from the game!

Retire from the game. The very idea of it seemed to have come upon him like a flash in the night. The hope, the possibility of—

A clattering, metallic sound broke his musing.

Sure as the heavens above him, he heard it—but it did not come a second time! He listened with suspended breath. He was positive that he heard it.

However, the horse still nibbled the short grass by the roadside in its placid way, and did not rear its head and prick up its ears, as horses had so often done on previous occasions when he was being chased by men, giving evidence of their approach when he could not hear a sound.

Baker was not a man to take chances. Jumping into the saddle, he spurred on again. This time there was to be no stop. Baker was as sure as death that he had heard the hoofs of his pursuers' horses. That was sufficient.

The more he puzzled over the sound, the more certain he was that he had to get further into the Bad Lands. He thanked his luck that the moon was so bright and the way so clear. To be sure, he had never been in this particular ridge of the hills before—but the formation of the land, the peculiar and unmistakable sheen of the ridges, were as an alphabet to him.

He gave his horse no chance for rest again that night. On and on he flew—on and on through the night—the animal's flanks white with foam, its neck and head stretched, its hoofs beating such a regular clatter on the roadway that Baker could tell just when its speed was diminishing.

Whenever this became evident, Baker would administer the spurs all the more. What meant a horse when his liberty and twenty thousand dollars were at stake!

The horse struck a rock, stumbled, plunged head forward and fell. Baker made a dive into the dust and scraped along for a dozen feet. He was too good a rider to get hurt, and he quickly picked himself up and ran to the horse.

"Get up!" said Baker sharply, as he dug his boot-toe in the animal's belly.

The animal did not move. The reckless rider had ridden him to death.

CHAPTER II.

The Deserted Settlement.

BAKER did not stop. The horse dead, he must, of choice, take to his feet. So on he went, leaving the dead animal to the vultures or the posse or whichever or whatever would first find it

On and on walked the hunted man, on and on through the night and the early dawn until, at length, he found himself in the abandoned mining-camp.

Tired as he was, he began to explore the place. From general observation, it was evident that the place was deserted—but he wanted to be sure. This one looked just like the dozen or more deserted camps that he had come across at various stages of his career, but, perhaps, there was some recluse passing his days in a cabin; or some prospector who still believed in the place, occupying one of the dried-up tumbledowns.

Baker went from cabin to cabin and peered in. If a cabin happened to have more than one room, he entered and made a complete search. Not only this, but he walked around each one, and peered under the porches, where porches were still visible.

He even searched the remaining barns and outhouses, but, except for himself, there

was absolutely no sign of life, save for an occasional snake that, disturbed in its sunny peace for the first time in years, scampered to safety under the rocks; a few lizards that had come from their crevices to warm themselves in the early morning sun, and a pair of buzzards that circled far above him.

The abandoned camp was riot run rampant. Empty tomato cans, kerosene-oil tins, empty bottles, and the bones of abandoned animals bleached white by the sun, littered the "streets" along which the thirty or more huts were irregularly arranged.

There were no footprints to show him that man had been there before. The winds had covered up all such traces.

The limestone hills of the Bad Lands looming far to the east, added to the grayness and the gloom. If a more lonesome place existed on earth, Baker could not have found it.

But he was glad. Inwardly, he rejoiced and was glad. It was just the place of all places for him. Had he been given free transportation after making away with the twenty thousand, he would have chosen just that spot as his destination.

Looking over the huts with critical eye, he chose one about the center of the camp for his dwelling-place.

In his tour of inspection, he had noticed this one particularly. There was a bed inside on which was a time-worn mattress covered with dirt and dust—but still a mattress.

Strewn about the floor were several blankets and some old clothing. A broken mirror, in which his face looked tangled and awry because the heat had distorted the mercury, still held its place on the wall.

But better than all this, the original tenants had planted a truck-garden at the rear—and now, the sun and the rain and a gushing spring had made the desert blossom as a rose.

The vegetables were growing at will, twining their tendrils onto each others stalks. The supply seemed plentiful, and Baker thanked his luck again.

He searched the other huts until he found the dilapidated remains of a broom. In a short time, the Baker mansion was swept clear of the accumulated dust of years; spider-webs were torn from the rafters; centipedes were sent scurrying to other quarters; the blankets were taken out and beaten; the bed was propped up; the mattress knocked into respectability, and comfortable proportions and the old clothing hung on the pegs behind a door that resisted all effort at closing.

Baker was very much more at home than he had been for some time.

Having been either on foot or in a saddle for some twenty-eight hours, he was now ready for sleep. He took off his boots that his tired feet might relax, placed them within close proximity of the bed, felt his leather bag, took the six-gun from its resting-place, and with his finger on the trigger, he lay him down to sleep.

It was still daylight when he awoke. Although the rest had made his body stiff and sore, he was nevertheless unwilling to stay abed longer.

First of all, there was the money. He wanted to take a good look at it. The frightened messenger who had thrown out the strong-box when Baker held up the train, had told him that it was hardly worth the taking, but Baker had heard such stories from messengers before.

When he had ordered the train on its way and taken the strong-box to a convenient place and opened it, he was not surprised to find the messenger mistaken, or else, perhaps, in other circles, the twenty thousand dollars in bills of husky denominations was a mere bagatelle.

Baker wanted to take a look at his money. He wanted to hold it in his hands, count it over and over again, press it to his cheek, and inhale the peculiar odor that distinguishes a well-worn bank-note. He wanted to revel in his new-found wealth. He wanted to paw it over until his hands were tired of the worn crispiness of the notes, and then he would put them to one side, like a cat tired of her kittens.

He went to the door and looked out on the landscape. He scanned the horizon, he ran his eye over the tree tops, he looked into the valley below, and he even looked into several of the empty houses.

There was not a soul in sight. He was as much alone as ever. Returning to the place that he had elected as his abode, he entered and plumped himself on the bed tailor-fashion.

Unbuttoning his shirt, he reached for the strap that held the leather bag in place, and unhooked it. The bag was wet with the moisture of his body, and as he opened it and took out his fortune, he marveled how much a part of him it all seemed.

Then he reveled in the money, counting

and recounting it. He piled it up in various piles according to its denomination He looked at the date of issue of each, he read the numbers, he marveled what a story each note could tell if its wanderings could be recorded.

He held them up to the light, he turned them over. He smoothed them out, and counted them again. He put them to his lips and kissed them—for they were his all! He had risked his life for them, he had been chased into the wilderness for them—and they were all, all his!

He piled them one on one carefully, tied them with a piece of twine, laid them gently in the snug recesses of the bag and fastened the strap to his body. As he did so, he thanked his luck—which was playing him a splendid game this time—that all the bills showed signs of usage. That was good.

"Those spick, span new bills," said Baker to himself, "are always dangerous. Every time you lay one of them down, the fellow who takes it looks at you as if you had stolen it. But, with these old ones, it always looks as if you had carried 'em for a long time—been sort of industrious and saving, as it were.

CHAPTER III

The Lonesome Capitalist.

ALL of the facts that have been narrated in the preceding chapters happened during that month of the year when spring is well on its way, and summer is already announced by warmth and blossom and the enlivening doings of the wild things.

Baker was also very glad of that. Whatever he had to look forward to, a winter in that desolate spot, with its chilly winds and rains and bleak surroundings, was more than even the sudden possessor of twenty thousand dollars could stand.

But all through the summer and the glorious autumn he would live the life of a gentleman—so far as it was possible, of course—and by the time winter had begun to show its teeth then the disappearance of Baker of the Bad Lands, with twenty thousand from the Pacific Coast Special, would have pretty well melded into the ages.

The sleuths would be tired of looking for him, the reward that would undoubtedly be placed on his head would become forgotten. Other train robberies and other deeds of desperate men would be occupying the greedy newspapers and the craving minds of the public—and then he could go forth a free man.

A free man!

He spent the rest of the day in rummaging around the weather-worn cabins until he had accumulated a rusty and battered stove. He also unearthed a stew-pan that was bent and battered and which the erosions of time was quickly turning to rust; a large spoon, also turning to rust; several smaller pans of equal decay; three empty tins; a knife that was in a fair state of preservation, for it had been wrapped in several pieces of cloth and stuck in a drawer.

In another house he found a table. He carried this and the stove and various kitchen utensils into the cabin just next door to his. He had plenty of room, and why not have the kitchen removed from the house? The smell of cooking was none too pleasant, at any rate.

The stove had only one leg. Instead of searching for the other three, Baker knocked off the remaining one and let it rest on its bottom on the floor. Having accomplished this, he realized the importance of having an ax and one or two other tools to put the stove-pipe in place.

Baker started out in quest of these things. He did not find an ax, but he found a miserable apology for a chisel, a dozen screws, a wooden mallet, and a coil of wire. He added all of them to his stock. Noticing a piece of stove-pipe jutting from the roof a cabin not far from his own, he wended his way thither and wrenched it loose.

He had to be pretty careful, for the metal was in the last stages of decay. Stove-piping seemed pretty scarce, but with this length he could at least get his stove in working order.

He moved the stove against the window and deftly arranged the pipe so that it pointed outward. In order to accomplish this he had to turn the stove slightly on one end One or two blocks under the stove held it in place, and the wire served well to keep the pipe from leaning out so far that it was liable to lose its balance.

The next thing to do was to get stove-lids, and yet that could wait until he had his pots and pans in order. Taking the largest pot to a point of vantage back of the kitchen, Baker beat it with the mallet and scraped it with the chisel until the rust began to disappear.

The metal was pretty far gone, however. It was like trying to save wood that had been burned in a fire. He scraped and pounded the tin vessel until it showed some of its pristine glory; then he placed it on the stove, filled it with water from the spring, and proceeded to light a fire.

Baker was too old a desperado not to know the simple method of producing fire by friction. With his knife, a piece of flint which he always carried, and some of the dry sticks which littered the place, he soon had a good fire in the old stove.

Soon the water was boiling and eating away the rust. Baker supplied more water, and as it came to the boiling-point he scraped the sides of the pan with a stick, applying the power that lay back of his muscles.

In a short time the pot was in a presentable shape. Though battered and worn, it was clean and would do for cooking. He placed it in the sun for a few minutes while he gathered more wood, and it was not long before the pot was again on the stove serving as a bath-tub for the smaller utensils, which were boiled and scraped until Baker had quite a respectable dining-layout.

The stove needed four lids, but two would suffice for the present. Baker went on another foraging trip. This time he found a lid that was much too large for the stove in his kitchen, but which would answer every purpose. A few feet further he found the tin cover of a miner's dinner-bucket. This would also serve as a stove-lid, with the aid of a stone to keep it in place.

He filled his large pot with clean water and put it on to boil. The sun was beginning to dip low toward the west, and the cool breeze that ushers in evening was coming up from the lowlands. It was nearly time for his dinner.

He went into the vegetable garden and pulled up three large well-formed potatoes, a beet, and two parsnips. These would be sufficient. Perhaps it would be best to go sparingly with the viands—they would have to last him for months.

He washed them and scraped them and put them on to boil. He stood over them with the air of a chef as the water bubbled and foamed. Now and then he prodded the vegetables with his knife. They taxed his patience a bit when they did not soften as quickly as he anticipated, and he wondered if all things took so long to prepare for the table.

Finally the meal was before him. On a tin platter on the rough table, with the ancient spoon to aid, he sat him down, and in all his life nothing ever tasted quite so good.

As he ate, he lacked but one thing, he thought—that ever necessary staple, salt. It is wonderful what the palate demands. For a while, Baker thought that if he had to dwell in that place without salt, he would go mad, but then he remembered the stories he had heard of the men who crossed the Rockies with Frémont, who put gunpowder on their food in lieu of salt and found it pretty good at that.

He also remembered having read another article by a famous Chinese diplomat, who held that eating salt was only a habit, and a very bad habit at that. The air we breathe, the food itself, the water in which it is cooked, all contain a sufficient amount of salt to satisfy the wants of any man, and the promiscuous application of it to one's food is dangerous.

CHAPTER IV.

His House in Order.

THE meal finished, Baker cleaned up his pots and pans, brushed off the table, and began the task of putting his house in order. That it needed yellow soap, water and elbow grease, was more than evident.

Baker could easily supply the water and the elbow grease, and in place of soap, he used the fine sand that he scraped up from the dilapidated "streets," and a piece of soft sand-stone. Filling his largest pail with water, this modern Crusoe got down on all fours, rolled up his sleeves, and went at it.

The Baker mansion was quickly transformed into a spick and span frontier cabin.

Early the next morning, like the Crusoe of renown, Baker strolled about to get better acquainted with his circumjacence. He climbed to a high knoll which commanded a good view of the deserted camp and the surrounding country.

Baker took it all in keenly. From his intimate knowledge of that part of the world, he realized that he was at the outer edge of the Bad Lands, and that it would be safer to remain where he was than move in any direction.

To the east and north of him lay the impassable and inhospitable Bad Lands; to the west and south the open country.

He could see the flaming posters now being nailed to every available tree and fence post and country store, offering, perhaps, five thousand dollars for the return of his body—dead or alive. He could see the mounted sheriffs and their daring men dashing hither and yon on foam-flecked steeds at every little breath of a rumor, thinking a hanged sight more of the reward than of him. How easily he had fooled them!

They would not think of following him into the Bad Lands. They would surmise that no train robber, no matter how clever or daring, with twenty thousand dollars in his kit, would risk his life in those uninviting wastes. That's the way they would look at it—so Baker surmised.

He stretched himself at length on a rock and watched the sun glint to silver the spires of the lime-stone peaks crowning the vast region to his right. He pulled his hat down to shadow his eyes, gave the bag containing his fortune a hitch so that it would not jab into his side—and the whole world was his.

A lizard darted from its home in the rocks close by, scrambled up to the side of a boulder some six feet away, and began to blink in the delight of its morning sun-bath.

Baker watched it closely and began to scheme. The vegetable diet might pall, and he wondered if a bit of roast lizard would not vary his menu.

He had read in that same wonderful narrative of Frémont, how the Indians that accosted his party when he was crossing from California to the east, would drag lizards from their holes with crooked sticks, roast them alive over a fire, and eat them with marvelous relish.

"Well, what's good enough for a fine Indian is good enough for me," said Baker, and he realized that when men are hungry it matters little what they eat so long as something edible heaves in sight.

He glanced down over the irregular rows of cabins, and was surprised to observe a green patch behind a projecting ledge about three hundred feet from his own front door. Rising to his feet, he circled the neighborhood with his eyes.

He had involuntarily formed this habit before moving from one point to another. If the change of base were only a few feet, Baker took that precaution. Just why, he did not know. He thought it the safest thing to do.

The lizard, surprised at the presence of so queer a living thing, disappeared as if by magic, and Baker, with light and agile step, darted down the rock, walked glibly past his own door, and turned the ledge of rock that disclosed to his view the green patch he had noticed a little while before.

Before his eyes were half an acre of oasis—some dwarfed pepper-trees, a scant willow, a stretch of tall, tough grass, queer, hardy plants with scentless flowers of a dull, yellow hue, and—best of all—several gushing springs that poured forth a volume of cool, clear water, and sent it down into a cañon to find its way to some river or back into the earth again.

Baker stooped over one of the springs and drank deep of its flowing coolness.

"Luck, and still more luck!" he exclaimed aloud.

Here was water in abundance. Not only would he have sufficient—with the spring behind his house—for cooking and washing and drinking, but here he would hollow out a natural tub, so to speak, and every morning have a plunge that any man might envy.

He walked around the outer edge of his new-found paradise. Under the most spreading of the willows, he was surprised to see a rough, pine board which the hand of man had thrust into the ground.

It was a piece of fence-board, gray and weather-worn and rough—but it marked the only grave in that wild stretch of desolation.

Baker approached it querulously. He knew that it had been put there to mark some passing event in the former life of the town, and a queer little lump came into his throat as he read this epitaph which had been rudely carved with a knife:

"Emily. Age 5."

That was all. Baker looked appealingly at the grave and wondered what sort of a story that piece of board could tell if it could only speak.

Poor little Emily! left alone in that speck of a paradise in the most lonesome region of the West. Who was her father, and who her mother? What dread disease took her away? Where were her parents now? Did they ever think of that little grave which the cruel winds of winter had leveled to the ground, leaving only the modest memorial that such miscreants as he might not desecrate a grave.

Baker was not without sentiment. Though a desperate man who held life cheap and knew no fear—this resting-place of a child went deep into his heart.

He would not be so lonesome with little Emily to think of now and then. He would come often to the willow-tree, and, as time wore on, he would build a headstone of rock with his own hands—a headstone that would last and defy the elements.

And he would carve her name thereon—aye, he had the chisel and the mallet with which to do it, and the time. Even if it took the long summer through, he would see that Emily's grave was marked by a massive and endurable monument.

He returned to his home. Now, that things were beginning to shape themselves, he would have little trouble in living there until the winter set in. Then, as he had planned, he would emerge from his hiding-place, drift slowly and cautiously back to civilization, and in some great city enjoy the money he had stolen.

When that was gone, the villain mused, he would start forth again. There were other trains that he could hold up, and it would not be unpleasant to again think of the world being startled by the daring escapades of Baker of the Bad Lands. And, having held up another train, he would return to this spot—which he quaintly christened Bakerville.

That night he slept more peacefully than he had slept for many moons.

When he retired, he felt secure in his hiding-place. He had started a comfortable home which he would improve from day to day—yes, he would even have plant-vines and train them over his porch and windows; he would set stones in front to form a yard, he would gather a sufficient number of old stove-lengths to pipe the water to his back door; he would contrive to make a quilt to cover him at night; he would try a roast lizard some day, and he would wander into the wilderness in search of a bird!

Oh, he would be a king! a lord of the manor! a prince who was the master of possessions that were fertile and flowery! And he would plant trees and flowers in his front yard, and he would make himself a comfortable chair and sit there and watch the sun turn the sky to crimson, and hear the night birds pour forth their melody to the moon—

Baker had fallen into a deep sleep and was dreaming.

The next morning, he peeled a few potatoes and went to the spring to get the water in which to boil them. When he had filled the pot, he arose and turned completely around—his old habit.

The pan dropped from his hand with a crash. His heart, which had become attuned to the silence of the wilderness, seemed to pound his ribs, and his breath came in short gasps.

Over the trail by which he had found his way to the deserted camp, a man was tramping.

This man saw Baker, and he quickened his steps. He was a big, grizzled man of middle age, and he walked with a gingery alertness that Baker did not like.

As he came closer, it was evident that he was armed—two hefty six-guns hung from either hip.

Baker felt for his weapon. In his sense of security, he had left it in his cabin.

(To be continued.)

A PRACTICAL RAILROAD PRESIDENT.

As an illustration of the practical ways of Mr. Daniel Willard, president of the Baltimore and Ohio, in looking after everything that makes for the best interests in the road, it is related that on his way home from New York he left his private car and went into the cab of the engine, in which he made the rest of the journey. Being an expert engineer himself, it was not long before he discovered that the locomotive was not doing its best work. This was no fault of the man in charge. On reaching Baltimore, he had the engine turned over to test experts. The fault in the locomotive was soon discovered and rectified, but this did not suit the chief, and he gave orders for the similar testing of all the passenger engines.—*Railway and Locomotive Engineering.*

A new hand on the extra list knows why; an old hand ought to be finding out. If you're dissatisfied maybe the Old Man is.

—Musings of the Master Mechanic.

On the Immigrant Special.

BY GEORGE E. MAYO.

WHAT becomes of the army of immigrants which this country receives from year to year after they have been passed by the government and ticketed to their destinations by the Trunk Lines Association's clearing-house at Ellis Island?

Here is the answer to this momentous question, which many of our readers probably have asked since reading Mr. Mulligan's article in last month's issue of THE RAILROAD MAN'S MAGAZINE about the wonderful organization that segregates the bewildered newcomers, places them aboard train and starts them on their journey into the new world

The immigrant service is a branch of railroad work peculiar to itself. It is recognized in the organization of every big railroad in the country having eastern seaboard connections. It is replete with incidents that amuse as well as touch the heart.

Travel in the Immigrant Coaches Often Furnishes Some Odd Bits of Comedy and Tragedy That Rarely Reach the Notice of Those Who Ride in the Pullmans Up Ahead.

BROADLY speaking, the traffic of railroads is of two kinds, freight and passenger. It is the unofficial opinion of a good many railroad men, however, that there should be a third class; namely immigrant traffic. Certainly the handling of this business on the roads which carry the bulk of it is an undertaking entirely separate and distinct from that of handling the regular passenger business.

It is a service that has its own coaches, in which the ordinary traveler never rides—never at least after they have been used once or twice by the immigrants. It is handled through its own stations, which the ordinary traveler over the road never enters.

Its conditions are unlike the conditions under which any other kind of passenger traffic is carried on. In comparison with the task of chaperoning a dozen or so coaches filled with the raw material of American citizenship, taking a Sunday excursion crowd out of South Chicago or West Hoboken is an easy matter.

The obliging official of fiction who fixes up a special at 12.30 A.M. for the hero or heroine to catch the crack "Through Thunderbolt" that left thirty-seven minutes before on a schedule with no stops, can take no medals for celerity from the men who have to shove along the immigrant trains when half a dozen big liners come into port and Ellis Island begins to pass them along to the operating department.

Ellis Island the Nucleus.

As Ellis Island is where about eighty per cent of the incomers first set foot on American soil—said soil being in this case a wooden gangway—it is the trunk lines running out of New York that get most of the immigrant business. Sixty per cent of all those who land at that port are ticketed out without stop-over by one or another of these roads.

Ports other than New York get only an occasional slice of this business. Boston received about 40,000 immigrants last year, Baltimore 31,000, Philadelphia 16,000, while over 100,000 came in at various other points. Most of these newcomers are bound either for the cities where they land or points not far away, and cut practically no figure in railroad traffic.

It is only at the big terminals over on the Jersey shore of the Hudson, and in the traffic offices on the Manhattan side, that they roll up their sleeves and get ready for quick action when the liners come in. It won't do to keep the American citizen-in-the-raw waiting all night in a Jersey railroad station unless the road is ready to foot the lodging bill, and when there are two or three thousand of him to be taken care of in the course of an afternoon, action has to be prompt.

It is one of the peculiarities of the immigrant business that it comes spasmodically, depending as it does upon the schedules of the transatlantic steamship lines. One day not a ticket may be given out by the immigrant clearing-house of the Trunk Lines Association at Ellis Island. The next may see the arrival in port of half a dozen boats from as many European ports, and the clearing-house may be filled and emptied many times in the course of the day's work.

Easy Prey for Swindlers.

Nor is it only celerity that is required. These throngs of bewildered strangers, helpless as so many children under the unaccustomed conditions which surround them, must not only be set down at their destinations as expeditiously as possible, but care must also be taken to see that they are set down at the right destinations.

They must also be protected *en route* from the extortions and wiles of tricksters, who consider the ignorant and credulous stranger but fair game. It may seem that there can be little opportunity for the faker to swindle the occupants of the immigrant coaches, since ordinary passengers are not admitted to these, and the presence of intruders is certain to be discovered by the trainmen.

In spite of all precautions the resourcefulness of the modern crook often finds a way. If of foreign origin, he can pass himself off as a worldly-wise countryman of the newcomer, and in this rôle he has the choice of an unlimited variety of schemes for separating the victim from his savings. The commonest trick is to represent himself as being able to procure the immigrant a job, the preliminary thereto being, of course, the payment of a fee ranging from $2 to $20, according to the immigrant's means and the operator's nerve.

Variety of Bunco Games.

There are plenty of other games, however, ranging in originality and daring from selling to the bedazed wanderer the very coach in which he is riding, to plain barefaced robbery.

It is true that opportunities for perpetrating frauds of this kind are pretty strictly limited while the immigrant is actually under the wing of the road, for among their duties the officials and employees charged with his safe transportation number that of discouraging such ingenious games.

That they are successfully carried out from time to time is due as much to the victim's inability to tell when he is being fleeced and his fear of complaining of the acts of persons having in his eyes an appearance of authority, as to the superior skill of the crooks.

It is not often, however, that one hears of such a daring piece of work as that which two men pulled off one night in July last year, on a train between Jersey City and Paterson. This was a case of plain robbery. The startling feature of it was the nerve of the robbers in attempting to do what they did and the fact that they succeeded.

The train was a limited, and on the night in question a couple of immigrant coaches, carrying some sixty or more recently landed passengers bound for Western points, had been hitched on the rear.

Bedlam on Wheels.

Immigrant cars are likely to be put on any of the trains that run out of Jersey City at any time, and while they are not exactly popular with the crews, it is all a part of the day's work. The trainmen on the limited weren't worrying about their two loads of "greenies" trailing along behind, and it was not until the train slowed down at Paterson that the yells and screams

from the rear coaches attracted any notice. Then the conductor went back, with a couple of husky trainmen, to suppress what he supposed was an incipient race riot.

He opened the door upon a scene a great deal more startling than a riot. The aisle was strewn with bundles, empty valises, and their contents. Over these scattered belongings, frightened, frantic men and women were shrieking and running about in confusion, while others, equally excited, were holding up empty pocketbooks and shaking fingers, stripped of rings, before the faces of the astonished trainmen.

After a lot of time and a good deal of questioning, the cause of the disturbance was discovered. It appeared that immediately after the train pulled out of the station at Jersey City, two masked men entered the first of the immigrant cars. One stopped at the front door of the first car and displayed a revolver ready for business, while the other went through the passengers in a deft and nimble manner, not only requiring each to turn his pockets inside out, but also making them open their valises and bundles, the contents of which he searched.

Held Up in Cars.

In the next car the highwaymen repeated their work with equal thoroughness, threatening to shoot any of their victims who made a noise. The threat and the sight of the pistol was enough.

Not a man in the coaches showed fight, and the silence which prevailed until the robbers jumped as the train began to slow down was perfect. The vocal efforts which followed their departure and which alarmed the train crew, however, more than made up for the previous stillness.

As none of the immigrants could speak more than a few words of English, the officials of the road, to whom the case was promptly reported, had a hard time getting anything like an adequate description of the robbers. Consequently they have not, up to date, been disturbed in the enjoyment of their booty, which amounted to about $50 in money, besides a quart or so of rings and other cheap jewelry.

As an illuminating comment on the average immigrant's understanding of the new conditions by which he finds himself surrounded, the fact may be mentioned that some of the victims did not know that they had been robbed until they were told by the trainmen. They had thought, they explained, that it was a new kind of tax they were being made to pay, and they regarded the somewhat abrupt methods used as the ordinary manner of the tax-collector.

Just Does as He Is Told.

This, however, is an unusual incident in immigrant traffic. Ordinarily, the worst extortion encountered is at the hands of some vender of refreshments—dining-cars are not run on immigrant trains, nor is the immigrant admitted to the station restaurant under ordinary conditions—while the immigrant's chief discomforts are those he brings on himself or suffers through his ignorance of common hygienic and sanitary principles.

He has not even to worry about his safe arrival at his destination—a question which harasses the nerves of a good many traveling Americans, especially women who ought to know better. His responsibility in that connection was settled when he arranged his passage, probably before ever departing from the fatherland.

He has only to do as he is told; the road does the rest, and sees that he is not lost, mislaid, or stolen until the time when he is gently shoved out of the car upon the platform of the station designated on his ticket and into the arms of his waiting friends and relatives.

A better understanding of what this means in the way of organized effort may be arrived at by following the course of one individual of the hundreds of thousands who are annually transported over thousands of miles, and set down safely at the end of their journey at a destination the name of which they may not be even able to pronounce.

How Casimir Came.

There is, for instance, the case of Casimir Podolsky. Casimir hails from a little village somewhere in the Polish Prussian provinces, where the government has been attempting to Germanize the native Polish population, with a resulting encouragement to emigration.

Casimir dislikes the idea of serving in the Kaiser's army, or perhaps it is his experiences in that service that instil in him the feeling of unrest. Anyhow, he decides

that the time is ripe to transfer his allegiance and his husky muscular equipment to the land of the free and the home of the dollar.

There is a brother Henryk, who has already been in America two years and who writes to Casimir that he can get him a job in a place called Cleveland, if he will come at once. Casimir goes to the nearest agent of one of the transatlantic lines, if Henryk has not already made arrangements for his passage in Cleveland, and pays down his money for the through trip; so many marks for the steerage to New York, and so many more for a railroad ticket, at immigrant rates, from New York to Cleveland. The agent gives him a mysterious looking pale green document, stamped and inscribed with German writing which Casimir cannot read.

Through the Clearing-House.

Nevertheless, his faith in it is great, and rightly placed, for the document is an order upon the immigrant clearing-house of the Trunk Lines Association at Ellis Island for rail passage thence to Cleveland. Already Casimir becomes an object of interest to the traffic branch. He is now immigrant business in its first stage.

The second stage is Ellis Island. When the Immigration Bureau has taken Casimir's declaration and pedigree, has duly thumped him on the chest, looked at his eyes for trachoma and at his scalp for skin diseases, made him turn his pockets out and show his money, and decided that he is qualified for admission, it ties a large numbered label in his buttonhole and passes him along to the end of the long, low, red-brick wing, where the immigrant clearing-house has its offices.

Here Uncle Sam's concern with him ends, and that of the railroad begins, for the immigrant clearing-house is the institution, jointly maintained by the trunk lines running out of New York to the West, through which all their immigrant business is handled.

If you have ever bought a ticket to the annual outing of the United Lime-Pickers' Association at Paradise Park, and then tried to get on the train of three coaches and a baggage-car filled principally with "refreshments," simultaneously with your 4999 fellow-excursionists; if you have ever attempted to storm your way to a Saturday double-header at the West Side grounds ten minutes before playing time when the "Cubs" were fighting the "Giants," if you have ever been a Brooklyn commuter, you may be able to form some faint idea of what the immigrant clearing-house is like on a busy afternoon.

To fully realize, however, you must see and hear it on such an occasion. The packed mass of alien humanity, which had just passed the bewildering process of inspection by the immigration officers, flows along, babbling all the tongues and dialects of Europe, submitting, sheep-like, to an authority which it does not understand, and creating apparently hopeless confusion as it packs into the big main receiving-room, where the various bureaus of the clearing house are.

The confusion is only apparent, however. As a matter of fact there is a ready hand and a voice, speaking his own language, to guide the immigrant at every turn until he finally lands in the proper compartment, ticketed, relabeled, and ready for the next stage.

No Chance To Go Wrong.

There is never a chance for Casimir to lose his way or make a mistake. Authority in a uniform meets him at the entrance and steers him straight, every time—first to the ticket-window, where he surrenders his pea-green document and gets in return a much less imposing looking slip of pasteboard which reads "Jersey City to Cleveland."

Thence he goes to the money desk, where he turns his marks into good American coin at the prevailing rate of exchange. Maybe he goes to the telegraph office, where he sends word to Cleveland when and by what train he may be expected.

If instead of having his passage prepaid, Casimir is one of the twenty-five per cent who wait until arriving at Ellis Island before buying their railroad tickets, the process is the same, except that he gets his money changed before going to the ticket window.

After all this is over, he is shunted off into another room, divided by wire partitions into several compartments, each one of which is plainly marked "Erie," "D. L. & W.," "B. & O.," "West Shore," and so on through the list of roads belonging to the Trunk Lines Association.

Into the right compartment they steer Casimir, where he stays until it is time to go on board the boat. It isn't always the same road to the same destination, for the attempt is made to concentrate each day's business as much as possible upon one or two lines.

Making Up the Trains.

Thus one day it will be the Lackawanna, the next the West Shore, the next the Erie. The baggage is similarly sorted out in another series of compartments.

Meanwhile, the various railroad operating departments are getting ready as the clearing-house sends word, "Six hundred coming up at 4.30," to one; "Four hundred at 6 o'clock," to another, and so on through the list.

Sometimes the day's grist can be handled in one instalment; sometimes the clearing-house is emptied and filled again several times in an afternoon. However fast they come and however short the notice, it is the operating departments' business to be ready.

Once Uncle Sam has passed them, the immigrants cannot leave Ellis Island too promptly to suit him, as all his spare space is needed for the next arriving batch. The clearing-house has even scantier accommodations than the government. Its responsibility is ended when it has delivered Casimir and his companions at Hoboken, Weehawken, or Jersey City, as the case may be. It is then up to the various railroad operating departments to make the next move or provide lodging for the crowd.

Consequently these move in double-quick time from the moment that word is received from the island. The special stations maintained by the principal lines at their Jersey terminals for the exclusive accommodation of immigrant traffic are quite able to hold five or six hundred persons at once.

Ready to Start.

Their appointments, if not so elaborate as those of the regular passenger stations, are adequate and are superior to anything those who use them have been accustomed to heretofore. The resources of a separate immigrant lunch-counter are available to those who have not bought one of the regulation box lunches sold at Ellis Island. It isn't such a tedious wait, therefore, until a string of immigrant coaches, which are simply standard passenger coaches assigned to immigrant service, can be coupled up and backed into the station.

If coaches enough are filled they will be made up into a special train; if not, they are attached to the rear of one of the regular trains. Forty to a coach is the standard allotment of immigrant passengers, although the ordinary coach has seating-room for sixty.

Packing them to capacity, however, is not regarded as good policy on the tedious day-and-night runs with frequent lay-overs which the immigrant train has to make to avoid interfering with the regular schedules.

Even with the coaches filled to only two-thirds of their normal capacity, the atmosphere is apt to be rather stuffy, but Casimir and his traveling companions don't mind that; ventilation is an art with which they have never concerned themselves.

Nor do they miss the absent sleeper, but indulge in refreshing slumber sitting bold upright or curled up on the seats. Food and drink they can buy plentifully at the stations along the road.

Altogether it is far from an unpleasant experience to Casimir's mind. It is better than the steerage, for even if the space for movement is a trifle more cramped, there is, at least, always something new to see from the windows of the train, and there is no strict discipline of the ship to be submitted to.

In the Immigrant Coaches.

Here is something of the atmosphere of the land of freedom. One can talk and smoke, and sing and generally do as one pleases, even to the extent of taking part in a friendly row when the bottle which some one is pretty sure to produce has circulated a sufficient number of times to stimulate the spirit of argument.

Said indulgence, however, is found speedily to result in the appearance of members of the train crew with a display of hard fists and brief courtesy, which often ends in knocking the participants into opposite corners and compelling them to stay there.

Milder social amenities proceed unchecked, however. Acquaintances of the steerage are sure to be numbered among the party, and new friendships are soon made in the enforced companionship of the journey. The first few hours sees the formation of many congenial little groups.

Those of the same nationality draw naturally together, particularly those who have known each other in the previous stages of the passage, or who hail from the same town or district. Again, there is a mutual bond of interest among those bound to the same destination. New sympathies are discovered, too, in the bashful exchange of glances of admiration and curiosity between young man and maid who meet thus strangely so far from their native land.

It would be no unprecedented thing should Casimir introduce to his Cleveland relatives a blushing betrothed whom his enamored eyes beheld for the first time across the aisle of the immigrant coach. Romance can, and does, have its beginning there as well as anywhere else.

Speaking of romance, here is a story in point. It concerns a railroad man whom, for purposes of identification, we'll call "Bill" Atterbury. It happened a couple of years ago, before Bill was put on the through run he now has

On this particular occasion he was running up to the mines with a rough crowd of Slavs, Bohemians, and Italians. In one of the coaches though there was a little party of a different sort; a Welsh family of father, mother, and grown-up daughter going up to Scranton.

The girl was quite pretty and not badly dressed; a fact which Bill had noticed at first sight, as he was a bachelor then. He managed to keep pretty close to that car most of the time after that. It happened that there was a particularly ugly bunch of foreigners in there, and Bill was inclined to fear that there would be trouble.

It came, unfortunately, when Bill was somewhere else. Some of the other occupants of the car had noticed the girl, also, and although the little party of Welsh folks kept strictly to themselves, the men began staring at her and saying things among themselves. By and by, one fellow who had had a few drinks too many stepped over and started to sit down by the girl.

Her father jumped up and struck him, and then three or four more of the gang piled on top of the old man and tried to punch holes in him with their boot-heels, while the girl and her mother yelled for help.

Bill heard the yells in the next car. In less than a minute he was in the middle of the mix-up with both fists flying and with a 190-pound Pennsylvania Dutch brakeman to help him out.

In less than two minutes Bill and the brakey were in undisputed possession of the floor, except such portions of it as were occupied by prostrate members of the gang.

Naturally the Welsh folks made a great fuss over Bill. They told him all about themselves and how they were going to stay with a son who had succeeded with a small business in Scranton after starting in the mines. Bill took another look at the girl and told them that he often laid over in Scranton. That brought an invitation, which of course Bill accepted.

As previously mentioned, Bill was a bachelor then. He isn't now. He married in less than a year afterward, and Mrs. Bill was born in Wales.

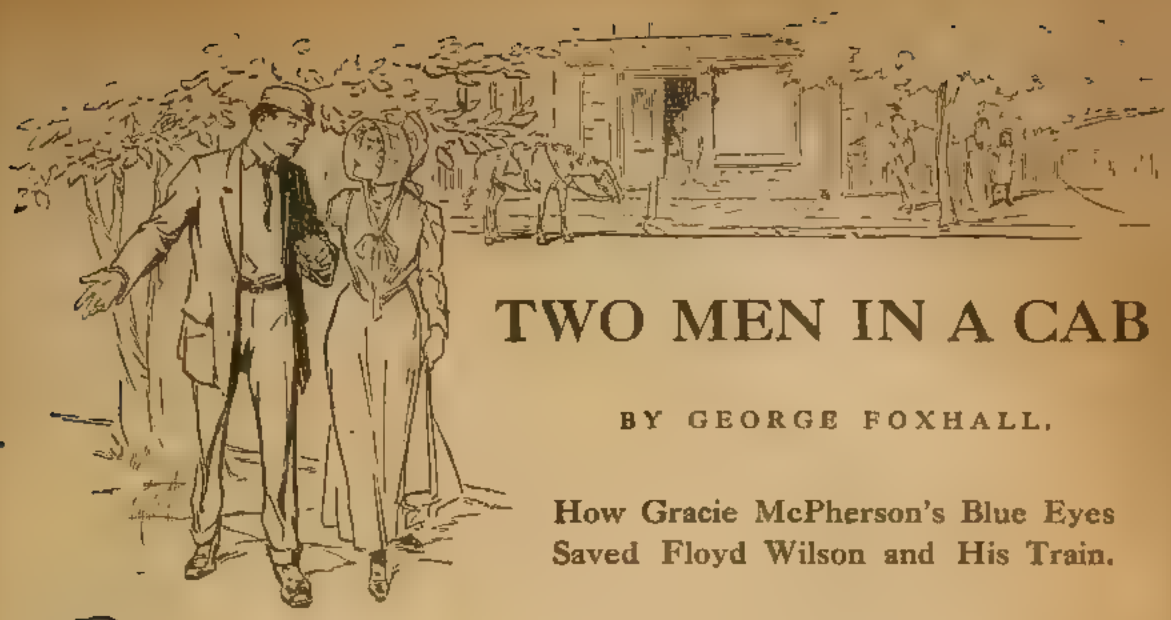
There is pathos on the immigrant train, as well. Not more than a year or two ago, there was a Russian family on its way to Chicago. Among the children was a little twelve-year-old girl; pretty, clever, and full of curiosity about everything that was going on.

It is a longer ride to Chicago on an immigrant train than on one of the eighteen-hour fliers, and before the trip was over the child had become a general favorite. In Chicago, while friends were greeting the father and mother, the little girl was overlooked for a moment.

When they missed her there was an awful howl, but it was too late; she had disappeared in the crowd. The station force and the police did all they could, but in spite of their search she was never found.

The only reasonable explanation of her disappearance was that she had been kidnaped. Not only the immigrant children get lost around the stations. The grown-ups often get into trouble when they take to roaming around by themselves, but they are usually found and brought back before twenty-four hours have passed.

We know politeness don't cost nothin', but some folks is so proud you can't give it to 'em.—An Old Con.



TWO MEN IN A CAB

BY GEORGE FOXHALL.

How Gracie McPherson's Blue Eyes Saved Floyd Wilson and His Train.

GRACIE McPHERSON saved the Royal Red Limited and No. 24 fast freight, and she wasn't within fifty miles of either train. It's not a spook story; you couldn't imagine anything less like a spook than Gracie McPherson. She was as plump and as ruddy as the Scotch lassie her father had courted among the heather thirty years before, and she was as sweet and gentle as the white-crowned woman who had rested from the burden of living a year ago the previous 14th of August—before father and daughter came to America.

The date is mentioned because that was the day that Tom McPherson began to be "queer;" and it was the day that Lloyd Wilson, her father's fireman, had taken Gracie's hands in his own and stammered awkward words of comfort about God and heaven, and the sorrow of her father that needed her strength.

Tom McPherson had always been a deliberate man—authoritative, but never tyrannical; stern, but always just.

That 14th of August had brought to Tom two things—the inexorable sense of loss, and the equally inexorable knowledge that he was suffering from an ailment that no engineer has a right to suffer from and work. It was on the very evening of that day that he had fallen, ghastly pale and sucking in great gasps of breath, into his big armchair. In a moment, Gracie was at his side.

Reviving just in time to prevent his daughter from giving an alarm, he had cautioned her harshly against ever breathing a word about the incident; for he saw, in the long, idle days of retirement, a terror that his lonely soul could not face.

Gracie, looking into his eyes, saw the change and the terror, without knowing what either meant, and her heart sought comfort in the memory of two strong hands that had enfolded hers, and two serious gray eyes that had spoken of tenderer things than the lips had dared to frame.

Next day, on the run, the old man was morose and irritable. The following day he was the same, and each succeeding day seemed to add sourness to his disposition. Lloyd met his changed mood with a patience built upon years of loyal friendship, and a pity that never forgot the old man's loss.

No friendship nor pity could withstand the gradual undermining of confidence that was bound to result from these strained relations, the reason for which Lloyd could not always fathom.

For years they had worked together with the efficiency of mutual confidence—the splendid cooperation that builds friendship. Now a mutual distrust crept stealthily into the spirit of the day's work—a distrust laden with possibilities of wreck and death and lifelong tragedy.

If Lloyd was at first in doubt about the underlying cause of his engineer's newborn dislike, he was soon to have it hurled upon him with the staggering pain of an unexpected blow.

On the second Sunday, Gracie, for the sake of her father, bore her blushes and sent a little note to him, appealing to him to come and try to cheer her father out of his gloom; and, because there was creeping into his own life something new and alluring and winsome, he went.

Gracie busied herself preparing dinner while the two men made shift to be as uncomfortable as possible. Lloyd made one or two awkward attempts at conversation, drawing from the old man a surly monosyllable or two, and then McPherson got up and went into the garden, carefully closing the door after him as a hint that the garden would hold only one man at a time.

"Is anything the matter between father and you?" asked Gracie, coming in a minute later and finding Lloyd alone.

"Not that I know of," answered Lloyd. "I think he's just brooding over his trouble. He'll be all right in a week or two."

She began to set the table just as her father came in. He stood for a moment and watched her, and as she placed a knife and fork in the place always occupied by the fireman a dull flush crept over his neck and ears and face. He turned slowly on his visitor.

"Lloyd Wilson," he said, "don't you know when you're not welcome?"

Gracie looked up in wild-eyed astonishment, and Lloyd flushed scarlet.

"Why, Tom," he said, "I didn't think I was unwelcome."

"No? Well, let me tell you. You are! I've been watching you for a long time. I've seen the way you look at my girl, and the soapy manner you talk and act to her; and let me tell you, there isn't any mooning lout of a tallow-pot going to take my lassie away from me while I've strength to order him out of the house. You can go. And," he added, with sour sarcasm, "don't you come again until you get a written invitation from me."

Shamed and humiliated, the girl fled before the tirade was finished, and Lloyd, not daring to trust the anger that flared up within him and consumed the affection of years, picked up his hat and went.

Then the old man, bitter without cause, began a systematic persecution of his fireman that was as senseless as it was cruel. Only a fireman can understand the thousand ways in which an engineer can make life unbearable for the second man in the cab.

The running position of the reverse-lever was changed, and the engine used ten or fifteen per cent more steam than she had ever done, and did her work less easily. The skilfully built fire would be whirled into bare spots and deadening heaps, and coughed through the exhaust with disheartening persistence when it was most needed.

The result was that the engine, with its forty loads, went dead twice within a month at the Barden grade, laying out the limited once for ten minutes, while the Teutonic patience that Lloyd Wilson inherited from his mother began giving way before the hot passion of his father's Celtic blood.

He had been humiliated in the eyes of his workmates and superiors, and belittled in his own esteem; but he had kept his tongue under guard through the memory of an appealing, troubled face that had been turned to him for a second in its grief.

He had seen her once or twice, but there had been no opportunity for more than a few words since that memorable Sunday. At length they met in the post-office, nearly a mile from McPherson's house. As they went out, Lloyd walked up the road with her.

"Gracie," he said, "I can't stand this any longer."

"What?" she asked faintly.

"The way your father treats me. He's making life a misery to me. He's disgracing me as a fireman, and he's keeping me from you, though he knows I love you with all the strength of my life."

"You ought not to talk like that to me, Lloyd, when you know how my father feels about it," murmured Gracie, the pink of her cheeks hiding itself in her throbbing heart.

"I'm not going to discuss the rights and wrongs of it," he blurted roughly. "I've suffered wrongs enough to balance his rights, and a man has no rights that injure other people's lives, anyhow.

"I've treated him like a son, and I've earned his respect; but what has he given me? Insult and shame. I love you, dear," he went on, softening, "but I wouldn't stand in the way of anybody's duty. To-day I shall apply to be transferred, and if I'm refused I'll quit. But I'm going to work and wait, and I'm going to make a home for you, if you'll come to it when—when you can."

"I can't talk about that now, Lloyd. I'm too upset and miserable. You'll have to speak to my father."

"Your father—" he began hotly, then stopped. "I've made my last run with your father," he finished doggedly.

The memory of the three mysterious, courage-shattering attacks stabbed the girl's heart with anxiety for her father.

"Oh, Lloyd," she pleaded, "don't leave him. I'm so worried and frightened. He's an old man and nearly crazy with grief, and—and—" Her courage failed, and she dared not tell. "Don't leave him. Go to-night, anyhow, Lloyd. Promise me you'll

IN A MOMENT GRACIE WAS AT HIS SIDE.

go and look out for him. I'm so miserable," she finished moaningly.

Lloyd caught her hand in an impulsive tenderness. "Poor little girl," he soothed. "It's been with the memory of you that I've borne all his insults and abuse without a word, and for your sake I'll go to-night; but I cannot promise more, for there's an awful temper pulling at my will, and I'm at the far end."

He pressed her hand a moment, then dropped it and was gone.

The run began eventfully in the gathering dusk that evening, the fire-box sending out a soft, gentle glow that grew brighter as the black background of night crept on. The men read the orders, and the engineer signed them, and then, after a slip or two of the drivers, the slow, rhythmic exhaust told of the mighty power that was moving a mighty weight.

As the train gained momentum, she picked up speed and soon was making thirty miles on a gentle down grade. Then came a slight up grade. From the usual running position McPherson pulled the reverse down three notches and the exhaust sighed great wet sobs into the night.

Lloyd swung his arms with increased energy to carry her up the grade without losing pressure, but with the persistence of Fate the gage fell back; two hundred and ten, two hundred and five, two hundred, one hundred and ninety five, one hundred and ninety, and then the grade was topped and the heart-breaking pull on the gage ceased, though the exhaust waste went on. With painful slowness the needle climbed back.

"What's the matter?" growled McPherson hoarsely. "I haven't heard that pop-valve for the age of a duck."

Lloyd did not reply, though his nerves tingled and his brain was hotter than the fire-box.

"I reckon the pop-valve must be broken," shouted the old man tauntingly.

"DON'T YOU KNOW WHEN YOU'RE NOT WELCOME?"

"I'll put a requisition in if you say so. We'll be blowing the gage to pieces first thing you know."

"We'll never blow any gage to pieces while you keep a cut-off that carries ten pounds of pressure up the stack every time she exhausts. What did you want to drop the reverse for?" shouted the fireman, and then he choked off before his anger could overpower him.

"Bah! You ought to fire a donkey-engine," retorted the engineer disgustedly.

They were on the single track section between Cedarville and Barden. Brixton lies between the two, with the Cedarville grade dipping through it and the Barden up grade beginning about a mile beyond.

Previously the 24 was scheduled to get onto the double track at Barden before meeting the flier, but that day had seen the making of a new schedule for the flier and the fast freight was ordered to get into clear at Brixton and wait for the flier to pass. The new orders had nettled the engineer, and as it proved, it was this that brought tragedy into the night's run.

"I suppose you noticed we have to take the siding at Brixton, for the flier," he yelled, above the crash of the exhaust. "Reckon they got tired of us dying half way up the Barden grade, and laying the limited out."

"I reckon so," said Lloyd, mopping his forehead and refusing the bait. They were topping the summit for the Cedarville dip, and she had a full head and little work for the next five miles.

"I understand you were going to quit me to-day if it hadn't been for Gracie."

Lloyd nodded surlily.

"Well, I don't care a darn, and Gracie only wants to save me breaking in a new man. I told her that wouldn't hurt me, and she don't care now whether you go or stay. She says you're a quitter and a coward, anyhow."

Then the iron restraint of over a year broke down. Lloyd leaped across the cab and grasped the old man roughly by the arm as his hand was about to close the throttle. He swung him half around and glared up demoniacally into his face.

"You're a liar," he screamed.

Half surprised and half frightened, McPherson grasped a heavy wrench and swung it downward. The blow was partly blocked by the other's arm, but it dazed the fireman and forced him, reeling, backward. Mad with rage the old man sprang down from his seat.

A second blow struck Wilson on the shoulder, but before McPherson could strike again, an agony of pain and terror flashed into his eyes and overspread his face, and

with heart piercing yell he crumpled to the iron floor, his limbs working and his lungs sucking in great sobs of breath.

"My pocket, Lloyd! Look in my pocket!" he gasped with a mighty effort, pointing to where his coat hung above the reverse lever. Then he straightened out convulsively, dead.

The light of madness was still in Wilson's eyes. The revulsion, the breaking down of the iron will that had dammed his rage for so long, and the message from the girl combined to produce an obsession of rage that the death of his enemy would be the last thing that could stem.

For a second his dazed eyes took in the scene, then, comprehending, with a weird laugh of triumph, he sprang to the engineer's seat. He would be engineer now, through five miles of a ripping ride to death. He was boss in the cab at last.

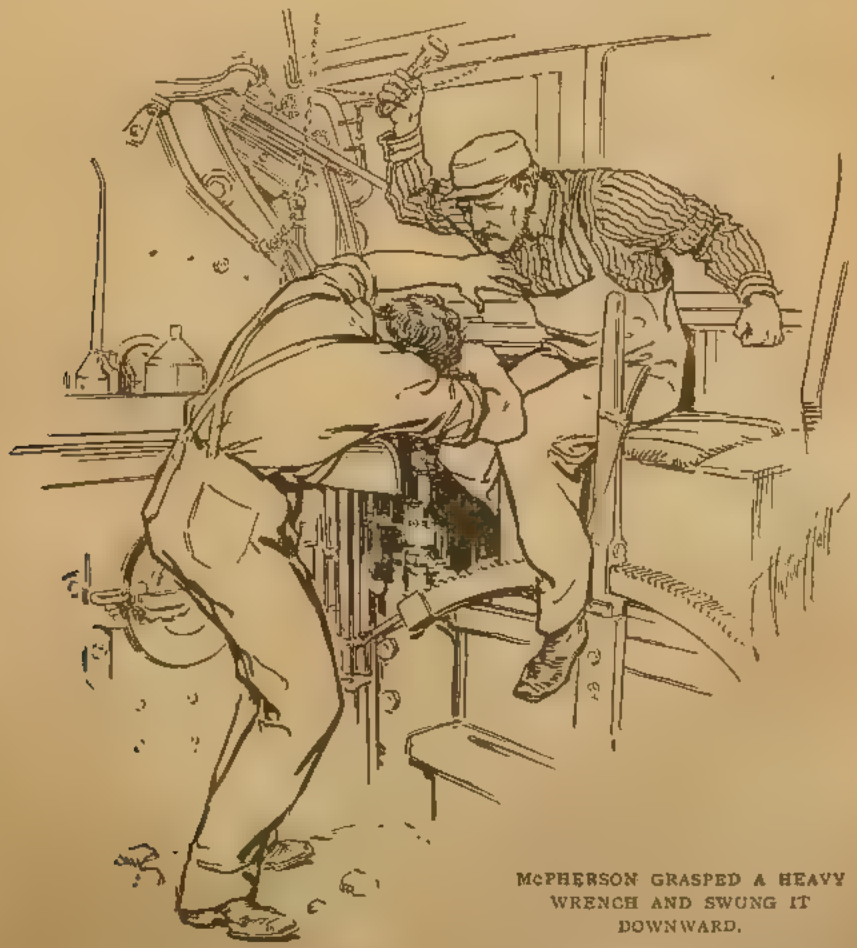
He looked back. The last load had topped the summit, and they were gathering headway for the wild plunge down the mountain, with the limited in their path near the end if they kept the rails. He would keep them on the rails.

He twitched the handle of the Westinghouse a little to steady them, so as not to end the ride too soon. The steam still hissed through a wide open throttle. It should be a glorious ride.

He looked around joyfully and touched the engineer's coat as he turned. Somehow that coat wove itself into his insane dream. What was there about it? The old man's body caught his eye and he laughed. Medicine in the pocket, probably.

Well, he was beyond medicine now, or soon would be; and Lloyd peered grimly into the flying night. A coward and a quitter, eh? Maybe, but here was something he would see the end of, and nobody could call him a quitter then.

The coat still obtruded itself on his consciousness. Its presence seemed to mock and insult him. He was no longer the boss he had been when he first leaped into that seat. Well, he would soon make short work of the intruder.



McPHERSON GRASPED A HEAVY WRENCH AND SWUNG IT DOWNWARD.

He would throw the coat out. He turned and seized it. Something protruded from the pocket, stiff and large. It was a piece of cardboard. On it was some writing in a hand curiously familiar. He read:

To my dear old friend, Lloyd Wilson,
By courtesy of Father.

The date at the corner was that very day. He turned the cardboard over, and into his bright, mad eyes, looked the half-wondering, wistful eyes of Gracie McPherson. Appealing and innocent they gazed into his, and once more a voice, tinged with the presage of a great trouble, sounded in his ears, "Promise me!"

Like the awakening from stifling ether his brain slowly cleared, and, sane, he found himself looking into pictured eyes that mirrored life and duty; and again the memory of a voice, pleading with the agony of helplessness, came to his unfettered mind, "Promise me!"

He glanced around the cab and into the night, and with a cry as pitiful and prayerful as her own, he sprang to the engineer's box and snapped the throttle-valve shut. Then, gently, but as quickly as he dared—for with the long train and the steep incline he dared not risk a derail—he pulled the air lever around to the emergency notch, and there was a shrill screeching of shoes on wheels

The check was hardly perceptible, but she ceased to gain. He would have to plug her, and for one man, at such a speed, there is danger as well as hard work in the feat.

He straddled the quadrant, released the catch, and put his whole soul into a mighty pull. She came until she was almost upright and then began the struggle.

With sickening jerks she bucked against him, but still he strained, and then with a snap the lever went over and he locked her, two notches to the good in the reverse position. The horror of the approaching limited began to obsess him, but he put it from him and held his nerves with a will of steel.

Gently, slowly, he leaked steam into the cylinders, and then he felt the shove of the steam on the pistons. Gently he opened her farther. The momentum was being checked and everything was holding so far, but they were nearing Brixton and he must have her under control for the siding.

The dread that he might fail gripped him for a second, but he shook it off. He gave her more steam and the speed slackened perceptibly. Still he kept up the backward drive, until he felt her answering to his touch. Then he released the brakes a little and when he tightened them again he knew he had her under control.

He pulled down the cord and whistled triumphantly for the siding. Then he closed the throttle and eased the reverse-lever in to running position with the air at the service hole and the train making a normal gait for the switch.

When they found him he was leaning over the body of the man he had loved, and in his hand was the letter—found in the same pocket as the photograph that had restored his reason. It was in the old man's writing:

MY DEAR LLOYD:

This is the written invitation from me, though I have a feeling I shall not be there to meet you when you accept it. Ever since the wife went, I have known my doom was sealed, and it has made a coward and a tyrant of me. Every time I step into the cab I am crazy with fear, and when I saw you at the house I was crazy with fear and jealousy, for I knew I had not long to be with my little girl. So the result for you has been such as only the bravest and truest man in the world could have stood. In a way, I am glad you have gone through it, though God knows I have not put you through it purposely, but it lets me know before I go that my little Gracie will have a man for a husband. I feel as if this will be my last run, though I hope I am wrong, and I have left a note for Gracie, telling her what a true man and a true friend you are, though I know the girl knows it better than I do. Take care of her, Lloyd. If it should take me on this run, forgive me for everything, boy, and God bless you.

Your old friend,
TOM MCPHERSON.

Clean overalls don't make a good workman, but slovenliness sometimes spoils one. Bloss up your proper pride. Exhortations of the Old Man.

First Fight for a Railway.

BY FELIX G. PRENTICE.

HISTORY proves that every great invention or discovery, no matter how many blessings it promised to mankind, at some stage of its development has been met by a wave of popular opposition often emanating from the very persons it was designed to benefit.

The railroad has been no exception to this rule In Great Britain and America, the first proposals to build road-beds and lay rails were blocked and hindered through ignorance, prejudice, and fear: ignorance on the part of those who would not believe what their own eyes told them was true; prejudice among the narrow-minded who, on general principles, opposed everything that was new and unknown; fear among those who believed that their means of livelihood would be threatened by the new method of transportation.

These were the popular impressions which the builders of England's pioneer line from Liverpool to Manchester had to contend with in their legal fight to gain the government's consent to their plan Many of the questions asked and the answers given during the famous proceedings before the committee of the House of Commons, in this day of progress, are as funny as Hunk and Horace trying to break into society.

This article, and the concluding one next month, will present the ridiculous ideas the people of eighty odd years ago had in regard to railroads, and they throw a great light on the almost hopeless array of fallacies and misconceptions which George Stephenson and his associates had to overcome before they were permitted to turn a wheel.

Determined Effort of British Lawyers to Prove That Stephenson's Locomotive Would Either Blow Up, Stand Still, or Slide Down Hill.

THE first legal battle for the construction of a railroad was fought in 1825, in England, when the proposal to construct a line between Liverpool and Manchester was considered by a committee of the House of Commons. The sanction of Parliament had been previously given to other lines, but they were chiefly unimportant in extent, and did not encounter much opposition, but, in 1825, the great struggle was between the railroad and the canal as modes of transit, and the interest at stake was the continued progress of the great towns of Liverpool and Manchester.

The anticipation of the men and the actual results will show the *ignorance* of mankind—eighty-six years ago—regarding the powers of natural forces.

The committee of the House of Commons to whom the bill was referred met for the first time on Monday, March 21, 1825. The chair was occupied by General Gascoigne, who was then member for Liverpool. The other extremity of the line, the

city of Manchester, was neither represented on the committee nor in Parliament, for Manchester was then neither a borough nor a city.

The railroad company appeared by counsel, the chief of which was Sergeant Spankie and Mr. Adam. Arrayed against the bill was a formidable phalanx of canal-owners, road trustees, and landed proprietors, among whom were the trustees of the Duke of Bridgewater, the proprietors of the Mersey and Irwell Navigation Company, the proprietors of the Leeds and Liverpool Canal, the trustees of Barton Road, near Manchester; Sir William Gerrard, Charles Orrell, and other landed proprietors through whose property the line was intended to pass. The legal talent engaged on their side appeared overwhelming. Mr. Alderson, Mr. Harrison, Mr. Rose, Mr. Earle, and Mr. Cullen being eminent lawyers of their day.

Pleas of the Promoters.

The first day was entirely occupied by the opening statement of Mr. Adam on behalf of the promoters of the line.

He began by saying that he proposed to discuss the subject from two points of view —first, with reference to the state of commercial interests; and, secondly, as connected with a more expeditious mode of conveyance.

"Railroads are a more convenient, safer, more economical, and a more certain mode of conveyance than any others which now exist," said Mr. Adam. "Unless something is done to increase the facility of communication between Liverpool and Manchester, the advances now being made in commercial prosperity must cease. Economy is one of the principal things on which to found the success of our commercial interests. If the committee find that, by the mode suggested, parties will be able to convey goods from the place of manufacture to the place of exportation at a very reduced rate, and in much less time than at present, the present measure ought to receive the sanction of the Legislature.

"The promoters of the bill ask permission to *make* a railroad, for the purpose of procuring a more expeditious mode of conveyance between the towns of Liverpool and Manchester. They allege that 'the making and maintaining of a railway, or tramroad, with proper works and conveniences adjoining thereto or connected therewith, for the passage of wagons and other carriages from or near the town of Liverpool, in the County of Lancaster, in and through the several parishes or places hereinafter mentioned, to the town of Manchester, in the same county, will be of great advantage to the inhabitants of the said county, towns, and places, by opening an easy and expeditious communication between the two large trading towns of Liverpool and Manchester, and by affording an additional mode of transit for merchandise between those places; and, also, to and from the neighboring county, and will in various other respects be of public utility.

Need of Greater Transit Facilities.

"The present means of transit are not sufficient in themselves. They are uncertain, attended with great risk, and with great expense. The promoters of the bill do not desire to supersede any of the existing establishments; on the contrary, they are desirous to go hand-in-hand with them. The new railroad shall be as speedy, as cheap, and as certain as the canal in all respects.

"Manchester, and the country of which it is the center, includes a manufacturing population of over half a million. The population of Manchester alone amounts to one hundred and sixty-five thousand. Within the last three years it has increased thirty thousand, and that, perhaps, is carrying it further back than the great commercial increase of the country requires. Manchester is the channel of communication through which the clothiers of Yorkshire export their commodities, and the manufacturers of Sheffield send much of their hardwares, as well as a variety of other commodities. They all make use of Manchester as the center, and require the same means of transit as the goods manufactured in the immediate vicinity of that large and populous town.

"There are a great quantity of manufactured articles, the transit of which is to be provided for at Manchester to Liverpool. They require extensive means of transit, and if that be so with the articles exported, it must be exceeded by the imported articles, for the greater part of the articles manufactured in Yorkshire, and in the neighborhood of Manchester, are far more bulky, and require much more space

in their raw state than when manufactured."

Mr. Adam added that the increasing consumption of coal and the output of cotton added much to the necessity of the road.

To Help Move the Cotton.

"What is the condition of the cotton trade from America?" he continued. "The whole of the cotton imported into Liverpool, with very little exception, finds its way to Manchester, and at present is imperfectly supplied by means of the existing canals. The amount of cotton imported in the year 1823 into Liverpool was 668,400 bags, but from America alone the quantity exceeded 400,000 bags.

"In the year 1773 the canal of the Duke of Bridgewater and the Mersey and Irwell Navigation Company were in progress. The population of Manchester at that time did not amount to quite 28,000. It is a most curious fact, that in the year 1790 there did not exist one steam engine in Manchester, though in 1824 there were above two hundred.

"So slowly did those advantages find their way among the manufacturing population of Manchester that, though at present there are 30,000 looms worked by steam, in 1814 there was not one worked in that way. This circumstance is mentioned for the purpose of contending that if it is found that the articles sent from Manchester to Liverpool, and the raw articles from Liverpool to Manchester, are so greatly increased, and that the facilities of conveying those articles are not greater in point of capacity than at that time, the promoters of this bill are entitled to a decision in their favor.

"Some idea of the demand for the means of conveyance may be formed when, in addition to these facts, attention is called to the quantity of articles that must be supplied for the daily consumption of the inhabitants, exclusive of that of the manufactories.

Canal Routes Unsatisfactory.

"The transit between Liverpool and Manchester does not fall short of twelve hundred tons every day; and there has been in the last year an increase of one thousand tons a week. Therefore, if twelve hundred tons be the quantity that now passes every day between those two places, we have reason to believe that an enormous increase of facility of transit will be required.

"For the passage of bulky articles, there exist three means: the Mersey and Irwell Navigation Company, the Duke of Bridgewater's Canal, and the Leeds and Liverpool Canal. The original object of the last was to communicate between Liverpool and Leeds; and it is only a few years ago that it was made the means of communication between Liverpool and Manchester; but the expenses, and the circumstances under which it is carried on, render it hardly possible that any persons can avail themselves of that medium of communication. Those are the only means by which goods may be sent from Liverpool to Manchester.

"It will be shown that both the manufacturer and the man who sells direct to the people suffer a great loss and inconvenience through lack of means to send their goods to Manchester and bring them back again. It will be shown that goods are materially delayed. The carriers say to the shipper, 'You had your turn last week; you must wait your time.'

"If it shall be shown that large manufacturers have actually suspended their operations because they have not had the means of carrying them on; if it is shown that large sums have been lost in consequence of the non-arrival of those goods, will you say, for the sake of any person, however meritorious or however respectable, that you will allow things to remain in that situation?

Shipments Delayed Six Weeks.

"It will be shown that it has taken longer time to pass goods from Liverpool to Manchester than to bring them over from America to Liverpool. It will be shown that goods have taken twenty-one days in coming from America to Liverpool, and that they have remained on the wharves before they could get the means of conveyance to Manchester for more than six weeks.

"Persons who have had goods to send have preferred to send them by common carts on the turnpike roads rather than suffer the delay to which they would be exposed by the other existing means of conveyance.

"During one whole week they passed but thirty bags. For four or five days they passed none—although the person to whom it was addressed required one hundred bags a week to carry on his manufacturing operations. It will be shown that it took *six weeks* before this shipment found its way to Manchester to be worked out.

"Another person you will find was actually obliged to buy cotton in Manchester in consequence of the delay, not intentionally, but on account of the present inadequate means of shipping. Spinners have been obliged to stop their employment, and merchants have lost advantageous bargains.

"Timber has been obliged to be deposited on the shores, until the owners have been fined by the Corporation of Liverpool for leaving it there beyond the time which is allowed by act of Parliament, because means could not be furnished to carry it into the interior of the country. Instances, and repeated instances, will be shown in which corn has been landed and warehoused, because it could not be sent on.

Dangers of Ocean Travel.

"Liverpool is in an open estuary, liable to the operation of strong tides, and most violent winds. In point of fact, its navigation is a sea voyage, and a sea voyage under the most serious and inconvenient circumstances. The course of the River Mersey is so shallow, and the channel of the river so narrow, that it is navigable only three hours out of twelve.

"You have to thread the mazes of its sands and shallows, and at all times it requires great skill to navigate it. It will be proved to you that the vessels must arrive at Runcorn, where the Duke of Bridgewater's Canal and the other canal enter the Mersey, at high water, and that they must therefore leave Liverpool some three hours before the rise of the tide; and, on the other hand, in order to get over the shoals that would obstruct their passage, they must go off at high tide, and if they miss that, they lose their voyage.

"This navigation is attended with danger. No longer ago than the month of November last, two vessels, with all their crews, were lost in their passage from Runcorn to Liverpool, and three were stranded. That is by no means an infrequent occurrence.

"With respect to canals, sometimes they have to struggle with frosts. So long ago only as 1802 or 1803 this took place, and twice within a still later period. Of course, they are liable to drought. You cannot possibly ship goods by those canals where the boats must pass through a vast number of locks without a large percentage of delay, or with the same celerity as by the mode proposed—railroads.

Eighteen Miles Saved by a Railroad.

"The shortest line by the canals is fifty miles at least. It will be shown that the average time in performing the voyage from Liverpool to Manchester is thirty-one hours. The distance between Liverpool and Manchester by the railroad is thirty-two miles and a half, instead of fifty.

"Since 1759 railroads have been known to a certain extent; but within the last ten years they have been in use, under circumstances not to be compared with those under which we stand, with great and considerable success.

"You will find in the neighborhood of Newcastle an instance of a colliery at Hetton, in which a railroad has been in existence long enough to show the application and safety of steam to the conveyance of heavy articles.

"The distance from the colliery of Hetton to the River Wear is about seven miles, and the quantity of weight carried is about sixty tons; the route that the railroad is traveled upon is about four and a half miles.

"It is a railroad under most unfavorable circumstances. In the first place, the railroad itself is not very perfect; but the machinery of the vehicles in which the coals are carried is still less perfect than the road, and yet you find that they work it to the extent of sixty tons.

Success of Other Lines.

"It was declared that the steam engine would be the result of countless disasters—but nothing has happened. The horses have not started, nor the cows ceased to give their milk at the sight of these things going forward at the rate of four and a half miles an hour.

"Besides the Hetton Railroad, there is another, the Killingworth Railroad, which has existed for ten or eleven years, and

which is in the neighborhood of Newcastle. This railroad has existed, without any doubt as to its efficacy, without any objection, and with the greatest possible advantage.

"That railroad runs over an undulating surface. But the proposed Liverpool and Manchester Railroad will have scarcely any rise—so little, that it is hardly worth noticing. It is so far from sudden rises that it will not be necessary to have one fixed steam-engine on the whole line.

"Locomotive engines we shall have, and horses we may employ if we think fit, but we shall not have to employ one single fixed steam-engine from one end of the line to the other.

"With regard to the liability to accidents by locomotive steam-engines, it is said that, inasmuch as it must be a high-pressure engine, it is not a safe means of employing the force of steam. The answer is that the assertion is not founded in fact. It is true that we shall be obliged to employ high-pressure engines—that is, engines where the steam will not be condensed; but so far from their being engines which will increase the quantity of danger, you will find that the pressure is so very little greater than that of low-pressure engines that it is scarcely to be noticed.

"You will find that accidents to steam-engines have arisen from one of two causes—either from gross negligence, which would have produced the same accident even with other engines, or that the boilers have been made of improper materials. They have been made of cast iron. If a wrought-iron boiler bursts, the opening is gradual and the steam gradually escapes, and thus it does away with all danger.

Six Miles an Hour Hoped For.

"Parliament has recently passed an act in which locomotive engines of the kind I am speaking have been adopted. I believe in the county of Durham there is one for the extent of twenty or twenty-three miles. I am fully satisfied that locomotive engines could supply the force to drive a carriage at the rate of five or six miles an hour. I say that those labored petitions, and the opposition that is to be made, plainly show that those opposed to railroads know that if steam was applied to the transit of goods between Liverpool and Manchester, it will produce the most beneficial results."

Referring to opposition, Mr. Adam said:

"No doubt the complainants, on the other side, are as much entitled to respect as any persons in the Dominion. What is the case of Lord Wilton, Lord Derby, and Lord Sefton? They state that they are large proprietors of lands. Do they state that those smoking engines, which are said to be nuisances according to law, affect their dwellings—as if the promoters of the bill were going to bring a railroad under their parlor windows and deprive them of the enjoyment of their own firesides?

"This railroad will not pass within two miles of Lord Derby's house, nor near the residence of Lord Wilton, nor near to Lord Sefton. Their houses are not within sight, or within smell, or within hearing. It must be imagination that could induce those noble persons to make any opposition, so far as they are personally concerned.

"It may be said, in some parts the cutting [culverts or cuts] will be deep, and will impede the passage from one part of those noble lords' estates to another; but you may walk across a railroad, though you cannot walk across the canals.

A Boon to Irish Farmers.

"America and Russia are beginning to form railroads and to make use of locomotive engines in the transit of goods, and it behooves England to resort to the same means of communication. Think of the advantage that would arise from the proposed railroad of enabling Ireland to bring her produce into the British market on as good terms as the Dutch, and some other foreign nations."

The whole of the first day was occupied with Mr. Adam's speech, and during eleven days immediately succeeding witnesses were examined. They were chiefly persons engaged in trade in Liverpool and Manchester, to show that the means of transit by the canal were inefficient and slow. The statements made more than bore out all the assertions on this head in the opening speech of the counsel for the railroad proprietors.

Sir John Gladstone, an eminent merchant of his day, the father of the late William Ewart Gladstone, the greatest British statesman of his day, was one of the members of the committee. He was examined as a Liverpool merchant, and gave his evidence so decidedly in favor of the scheme that the following question and answer passed between him and one of the opposing counsel:

Counsel — "You are perfectly satisfied with the general information you have received on the subject; you are perfectly satisfied it will be expeditious and economical, though the question is to be decided by the committee upon the evidence?"

The Witness—"I am satisfied, but have changed my opinions before, and I may be induced to change them again."

Examining Witnesses.

The witnesses next examined were the engineers, the first being J. U. Rastrick. He stated that he was a civil engineer at Stourbridge. During the eighteen years he had been so employed he had made a large number of both condensing and high-pressure steam-engines. In his opinion, high-pressure engines were not more liable to accidents than others; and they were preferable because they could be applied in many situations, such as during a scarcity of water, when condensing engines could not be used. He testified that he had made a locomotive engine ten or twelve years previous, and had made several observations on the working of locomotives on railroads in the north of England.

He then gave a description of the parts and the construction of a locomotive engine, and proceeded to state the results of experiments, which, in conjunction with Mr. George Stephenson and others, he had made on locomotives in the north of England.

During January of that year the first engine they tried was one at Killingworth, which they met coming down the line with a train of wagons. It had been at work since five o'clock in the morning, and had not been prepared in any way for experimental purposes.

The length of the road on which the engine was working was about a mile and a quarter. The ground was undulating, the total rise being from five to six feet. The rails were partly of cast and partly of wrought iron, and, in some places, had been laid down for horses.

Engineer Gives His Experiences.

The road was in bad order; so was the engine. Besides, there was a very sharp curve in the road. The wheels of the engine were four feet in diameter, and the entire weight of it, including tender and coals, was 9 tons 14 cwt.

The train consisted of twelve Newcastle caldron-wagons, all loaded, and weighing altogether 46 tons 4 cwt. The engine being started, drew this train along the road (a mile and a quarter) in twenty-four minutes; but, in returning, owing to the difference in the gradients, it only occupied eighteen minutes; that is to say, the speed going up was at the rate of 3⅛ miles per hour, and coming down 4 1-6. The quantity of coal consumed on both journeys was 170½ pounds. Other experiments were made showing the following results:

Weight.		Rate of speed per hour in miles.	
40 tons 10 cwt.	Up 4.445	Down	4.285
32 " 16 "	" 4.205	"	5.172
67 " 19 "	" 3.947	"	4.838

This third experiment was with another engine whose wheels were only three feet in diameter, but the four-foot wheels of the other were put on this, and the result was as follows:

With the engine alone a speed of ten miles an hour was obtained, and with a load, including the engine, of about sixty tons, an average speed of 6 2-3 miles was gained. In these latter experiments, it required a consumption of about 1 2-3 pounds of coal and half a gallon of water to take one ton of goods one mile.

Mr. Rastrick further testified that the engine might be so improved as to require only one pound of coal and be able to carry forty tons at the rate of twelve miles an hour. Such engines could be made perfectly safe.

Steam-Engine Better Than Horses.

Mr. Rastrick then gave the results of some other experiments made on a line about 2 1-3 miles long at Hetton colliery, near Sunderland. On this line there were three locomotives working, the "Dart," "Tally-Ho," and "Star." These engines had wheels three feet in diameter.

The first engine taken was the "Dart." The road on which it ran formed an inclined plane, but the engine pulled up a weight of about thirty tons at a speed of 5¼ miles an hour. In going down the incline, steam was not used at all, as the train descended by its own gravity at the rate of about five miles an hour.

"The steam-engine can be advantageously applied to the railroad," said Mr. Rastrick,

"because, in the first place, you can obtain a greater speed than you could conveniently do by horses. Your engine is not tired at the end of the journey; it can keep up its speed during the entire way, provided you supply it with the necessary fuel and water, so that you may go on all day, or work a whole day or a week, merely stopping at such times as is necessary to take in the coal and water.

"It is superior to a water conveyance, because a greater speed is obtained with an equal power. The speed on a canal could not be increased beyond three or four miles an hour, whether it is produced by horses or other power. The advantages of a railroad are that there is never any delay upon it, while a canal is closed ten days during the summer for repairs. On a railroad the repairs may be done without any hindrance to business."

This curious question was then asked Mr. Rastrick by a lawyer for the opposition:

"I have only one question more to ask you. I wish to know if you have made any observations with respect to the effect of engines with a train of wagons after it, in motion, upon horses; or upon horses in wagons, going along the road?"

Mr. Rastrick replied: "Yes; I had a very good opportunity of making an observation. We were taking the level of the road at Hetton, where the railroad crosses the turnpike-road from Sunderland to Durham.

"Made Him Look a Little Wildly."

"When we had fixed our station-staff upon the center of the road to take our levels, the wagons came up at that very instant. The first wagon was covered and the driver was inside. I called out to him to stop his horses. He did not get out of the wagon to stop his horses; but, being a covered wagon, he merely lifted up the cloth, looked out, and stopped the horses.

"Before we had finished our observations, one of the locomotive engines, with a train of wagons behind it, came up at the speed of about five miles an hour. The leader-horse in the wagon was within five or six yards of the road where the carriages passed.

"He was a young horse, and did not seem to be frightened at the train of carriages running past him at that velocity. However, it made him certainly look a little wildly.

"At the same instant a gentleman, mounted on a very young horse, rode up till his horse came almost in contact with the train. He checked his horse for about a moment and let the train pass. His horse was no more frightened than he would have been at the passing of a stage-coach. I called the attention of others to this fact in order that they might recollect the circumstance."

Mr. Rastrick was subjected to a severe cross-examination by Mr. Alderson, in which, however, his evidence was not shaken. What the lawyer made of it may be gathered from the following extract from his own speech in summing up:

Why the Engine Couldn't Move.

"I think," he said, "they have given us a theory against the practise. A controversy arose between Mr. Rastrick and me affecting the rate of traveling with those machines. He admitted that in the case of an engine standing still and kept from moving by the weight sufficient to prevent it from moving forward, and operating over a single fixed pulley, though the wheels of the engine should, by an increase of the power of the steam, turn round more rapidly, it would produce no increase of moving force, and the engine would continue to stand still.

"But he says, and says truly, that when the engine is in motion, if there be a moving force sufficient to overcome the resistance behind it, if there be no slipping of the wheels, the engine will then move forward more rapidly in direct proportion to the rapidity with which the wheels turn round.

"I agree to that, if the fact be so. But it may happen that the machine is not perfectly steady upon its wheels. These may slip back; the weight may perhaps overcome the moving force in question, produced by the friction; the slipping back may increase as the weight to be drawn increases, and the question is, will there not be slipping which has a tendency to counteract the power of the machine to go forward?

How to Prove That She Slips.

"Mr. Rastrick admits to me that if on an inclined plane you get to a certain elevation, the machine may turn its wheels round, but will not go forward or backward; because, in that instance, the resolved part of the force of gravity on that plane is exactly sufficient to counterbalance the fric-

tion by which the machine is intended to be propelled, and the one counterbalancing the other, the whole will remain stationary.

"Now, if we have an engine moving at a certain rate, not indeed upon a level plane, but upon another and less inclined plane than the one on which it will stop, I say it must of a certainty slip back. In the first case put, it must slip back altogether. On the inclined plane—when it arrives at such an inclination as to stop the machine altogether—it is palpable that the progressive motion is equal to the slipping back. There is a progressive motion arising from the turning of the wheels, and a slipping back arising from the inclined plane.

"In this extreme case it slips back altogether. Now, in the other case, I say, the slipping back will be in proportion greater or less according to the weight to be dragged up and the inclination of the plane. If my position be true—and I am not conscious of any fallacy in it—is there no mode of ascertaining it? I say there is.

"The number of the strokes of the piston compared with the progressive motion will prove that an engine has slipped back. If the entire distance traveled by the engine does not equal the distance, as shown by the multiplication of the circumference of the wheels by the number of strokes of the piston, it is clear the engine must have slipped back. Do not they know this?

"Why, I did but ask Mr. Stephenson: 'Do you go up an inclined plane?' 'Oh,' said he, 'I know what you are after—there is no slipping back.' Then, I say, why do you not count the strokes of the piston and give us the means of ascertaining whether you are right or wrong?'

"But what must the committee think of a witness who says, 'It cannot be so,' and yet will not make a decisive experiment to prove whether he be right or wrong? I will, however, show by the evidence now given by one of our witnesses that Mr. Stephenson is sadly mistaken.

Bound He'd Make Her Slip.

"The committee will recollect that these experimentalists did count the strokes in the first experiment, and they say that they did not count the strokes of the second. This gentleman did so; and, if I am right, the second experiment will confirm my view of the case; if I am wrong, it will not.

"Let us try. They say there were 536 strokes of the piston in going up the first time, which will cause a certain progressive motion. Every person knows that the proportion of the diameter to the circumference of a circle is about 3.1416. The wheels were four feet in diameter. If so, 536 strokes of the piston (which would produce 536 turnings of these wheels) would give 6,735½ feet. According to that, the machine would have gone the distance of 6,735½ feet; but inasmuch as the distance was a mile and a quarter, the actual progressive motion was only 6,600 feet.

"It follows that there was a slipping back in ascending 135½ feet. The engine must have slipped back to that extent. It had thirteen wagons behind it. Now, observe what it did during the second experiment, with only eight wagons behind it. This would produce a less retardation; and this young gentleman has shown that when there were only eight wagons behind it the same distance was accomplished in 520 strokes of the piston, and, consequently, there was then only a slipping back of 35½.

Would Have Her Slide Both Ways.

"Now, to what is it that the committee can attribute the additional slipping except to the greater weight behind the engine? This is the state of facts in ascending; in descending, it is different. When the weight is behind, then the whole weight slides forward together. It is palpable, then, that the weight behind neither accelerates nor retards the engine; the consequence is that the engine runs, as it were, alone down the plane, but it has the whole weight attached to it and acting upon it when it goes up. Does not this again confirm, and is confirmed by what this young gentleman has stated, viz., that in descending, in both experiments, the strokes of the piston are equal.

"Where the same circumstances occur, they are equal; but where there is a weight dragging behind, there is a slipping proportionate to that weight; and I put this fact against all their theory. There are none so blind as those who will not see, none so foolish as those who will not make experiments to show that their hypothesis is wrong.

"They say all this is due to a slip arising from a turn in the railroad. But is not the turn there equal whether there are eight wagons or twelve, even admitting that any

turn does exist thereabout, respecting which there are contradictory statements? I say also that the turn will equally apply to the ascent as to the descent. But, in point of fact, the engine slips *backward* in going up and *forward* in going down.

Some Legal Hair-Splitting.

"Does not that show the nature of the adhesion of the engine to the railroad, and that Mr. Rastrick is not correct in his view of the case. It is palpable upon the face of this transaction that a great deal of jockeyship has been used to make those experiments.

"Mr. Rastrick said that he casually met an engine with four-foot wheels; whereas, when that respectable gentleman, Mr. Wood, was called, he said that it had been prepared, and the railroad had been prepared, and the experiment had been prepared; and now it appears that not only had they prepared what experiments they would make, but also those which they would not make. A more uncandid mode of making experiments, I think, could not be, especially when they do not examine Mr. Cubitt, the only disinterested person.

"So much, then, for these experiments, which I cannot help thinking very fallacious; but I agree that these engines have been in use some time at an average speed of three and a half to four and a half miles an hour. That is a fact which no one can dispute.

"I do not mean to say, upon a better investigation of the matter, that these engines might not be made to go at the rate of five or six miles an hour, which only now go from three and a half to four miles an hour; but I am satisfied the committee will not act upon mere surmise and conjecture. In the case of an experiment, the fire is properly kept up, and to show how material that is, I appeal to Mr. Palmer's experiment. He proved that the strokes of the piston varied from thirty-six to fifty-seven in the course of thirteen minutes.

Afraid Engine Would Catch Cold.

"What does this show? It shows that it is necessary to keep up the fire very carefully, and that the various accidental causes to which it is exposed may reduce its speed in thirteen minutes to one-half. Therefore, when my learned friends are talking of the experiments being a criterion of the average speed at which these engines can go, I say it is not a fair criterion, and *I say there is no evidence upon which the committee can safely rely; that, upon an average, more than three and a half or four and a half miles an hour can be made.*

"Consider the nature of an engine. It consists, in part, of a large iron boiler, and the elastic force of steam is the moving force, and that depends upon the quantity of heat. The water is enclosed in a boiler of iron, a most rapid conductor of heat, and which must move in storms of snow, in storms of rain, and during the times of frost. At all these times, it will be extremely difficult to keep up the elastic force of the steam. I do not say it is impossible, but extremely difficult.

"The common engine is different. There the weight of the atmosphere is brought into play; but then it would be too cumbersome for the purposes to which these engines are appropriated.

"Now, sir, I say there will be great difficulty in keeping up the elastic force—and the circumstances brought out in examination confirm it—for it appears that those engines have coverings for the purpose of preventing the heat escaping. They are obliged, in the short distance they go on the collieries, to carry either wooden or woolen coverings. This shows the rapidity of the escape of the heat, and, perhaps, that does not wholly prevent it.

Dangers of Too Much Coal.

"Why, one shovelful of coal put on the fire at an improper time would reduce the number of strokes of the piston from fifty to thirty. These are circumstances which cannot occur at the time of the experiment, but they will occur when you have careless men to deal with. It is just as certain that you will not have always careful men as it is certain that you will not have perfect railways—in spite of what Mr. Stephenson has stated.

"Then, as to the danger. Oh, says the maker of these engines, they are perfectly safe. Why, did you ever know a manufacturer to declare his engines dangerous, or a gunpowder-maker to say that his powder-mills could not explode? Surely there must be some little degree of danger, or I should not have found this clause put into the bill itself: 'And whereas it is expe-

dient, for the more complete accommodation of the public, and the greater security of persons passing along said railway, as well as for the better management of the undertaking, that all locomotive and other moveable engines employed on the same railway or tram-road should be constructed on the most improved principles and in the most substantial manner.'

"It is not my opinion alone, but thus out of their own mouths I judge them. But we have been told they are safe. What is the meaning of safety? It depends upon circumstances. A loaded gun is a safe thing in the hands of a gamekeeper, but who would say it was a safe thing to leave in a house with children?

"Anything may be safe in the hands of a careful man, but in the hands of careless, and obstinate, and self-willed people nothing is safe. But the question is, will an accident, if it happens, produce great mischief? That is really the criterion by which to judge safety. But, say my learned friends, we have got a lock-up safety-valve, the only thing that was wanted to give perfect security!

"Now, what is the danger from the ordinary safety-valve? Why, this! When a man is anxious to get on more rapidly than he should he loads the safety-valve and wilfully exposes himself to danger.

"Then, I ask if it is not true that the lock-up valve is in his power. 'No,' says my learned friend; 'the rivets are fastened on the inside.' Who cleans the machine? Why, this careless man, by a hole at the end. He can enter through that hole, and, when he is in, what is to prevent him from undoing the rivets and enable him to load the valve?

"In a stationary engine, it may be different; there the master of the place is about the engine, and he may adopt means of proving that the machine is safe at any precise period of time; but what is true of a machine which is under perpetual inspection of a master, is not applicable to an engine under different circumstances. This is a specimen of the real care which engine-makers have for their clients.

"I say, then, there is nothing proved that any practical advantage can be attained by the railroad, in point of speed, over the canal. It is clear that up to four and a quarter miles the advantage is equal; but there is no distinct evidence to show that steam engines will make a greater speed."

George Stephenson, the perfecter of the steam-engine, was next examined. After telling who he was, and how he had been employed, he said that since he commenced business he had constructed fifty-five steam-engines, of which sixteen were locomotives. He knew of a locomotive engine in Leeds which was worked by a cogged wheel fitting into ratches in the rail. He considered this method useless, and accordingly all his engines were constructed to run without such a device. He thought locomotive engines a better means of conveyance than canals, because they were cheaper and safer.

Mr. Stephenson testified:

"A locomotive engine may be as safe as a condensing engine by making the boiler proportionably strong to the pressure it has to bear. It may also be kept in order as easily as a common engine, and the safety-valve may be kept from derangement by the engineer.

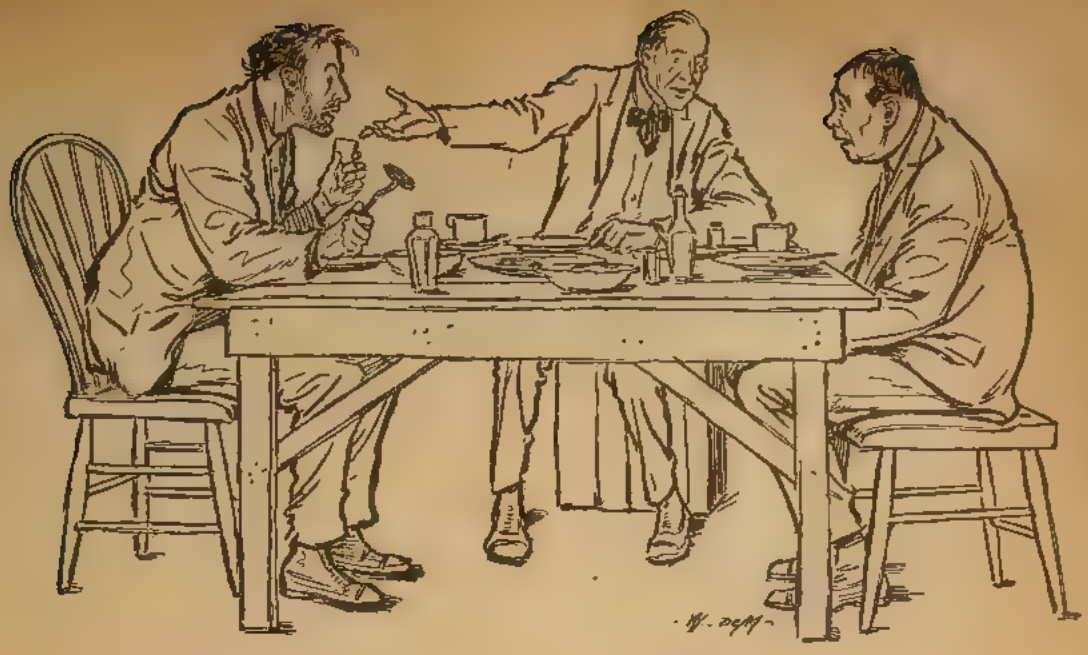
"My experience has taught me that such engines can be built with safety, and that the boiler may be constructed stout enough to resist atmospheric pressure and that of the steam. Such engines can be driven with perfect safety at a speed of from five to six miles an hour.

"On such a road as the Liverpool and Manchester I have recommended eight miles an hour with twenty tons, and four miles an hour with forty tons. I am quite confident that much more might be done. *Those engines, when in motion, are very easily managed much easier than a horse*

"They can be stopped in a quarter of a minute, and even less than that. They can be stopped as quickly as you could stop a stage-coach."

(To be concluded.)

A tramp might save a train, but he's not there for that purpose, an' the company ain't haulin' mascots. Leave your excess on the gravel.—Observations of the Head Shack.



"WOULDN'T THAT SPOOF YOU? SITTING AROUND HERE, MOOCHING OUR GRUB."

HONK AND HORACE.

BY EMMET F. HARTE.

Geology, Weary Willie, and Dobbin Add to Life's Gaiety at Wakickewa.

"DO you know anything about geology?" asked Honk cautiously.

"Oh, come off!" I replied. "That's some kind of a catch about me working on the rock-pile. No you don't! I'm not biting very well this morning."

"No, it's no 'sell,'" he assured me. "Don't be so suspicious. I've been delving into the great natural science of strata and eras. I've got it all pat, from the paleozoic epoch up. Show me a specimen of terrestrial matter, picked up or dug up at random, anywhere on the planet, and I either will, or will not, tell you instantly when, how, where, and why it happened and what for.

"Try me. Any old thing. Magnesian limestone, lower silurian sandstone, oolitic clays, upper secondary chalk-marls, shales, gravels, basalts, granites—come on with the test! Give me a trial!"

"Well, gee whiz!" I said. "Turn off the buzzer a minute, till I can find some thing."

I stepped off the platform, stooped, straightened up, and stuck out a fragment of some grayish, mottled substance, very irregular in shape and having considerable weight in proportion to its small size.

"Here's your specimen," I said. "Let her flicker!"

"Residue or slag," he began, clearing his throat learnedly. "Left after the combustion of common soft or bituminous coal. Popularly called a 'clinker.' Constitutes, say, seven to ten per centum of that well-

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known mineral fuel, caking or cannel coal. The same is found in beds, or sheet-like layers, deposited at varying depths beneath the earth's surface in both the eastern and western hemispheres.

"Generally speaking, coal beds were formed about the middle paleozoic period. Some varieties, however, date from the jurassic, or middle-secondary epoch. Contains: carbon, 60 to 70 per cent; volatile matter, 10 to 30 per cent; ash, 5 to 10 per cent. It has a specific gravity of, say, 1,329; one pound, in combustion, will evaporate five and one-half pounds of water, approximately. The 'why' and 'how' of coal present a peculiarly interesting—"

"I'll take your word for it," I interrupted. "Save the balance of it for some rainy day."

"Very well," he said. "But this is what I'm trying to get at; on the train I had a talk with a Professor Magillicuddy. We had a session from the Colorado line to Kansas City. He's a geologist from Rocky Ford, Stone County, Missouri. We classified and stratified this whole western country as we came through, and I've got a scheme to make you and me live happy ever after. Ever study up any on Portland cement? Never mind; you'd have it all hopelessly mixed, if you had!

"Portland cement is so-called from its color, which resembles Portland stone, a famous oolitic limestone quarried at Westcliff, England. Portland cement is composed of carbonate of lime in conjunction with a certain chalky clay found in different places. The only thing requisite is to find your deposit of the necessary ingredients, build a mill to grind, mix, and burn your cement; and then you can sit back and stamp 'paid' on the bills of your customers when they mail you the checks.

"Portland cement sells like flour, and tobacco, and creamery butter. It's a staple commodity. Magillicuddy and I figured and measured and puzzled over the geological formations of Oklahoma pretty severely. We finally located a deposit of the before-mentioned materials for making cement somewhere within twenty or thirty miles of this place Wakickewa, where you're slaving your life away for a mere pittance.

"The truck is here somewhere, Horace. We traced the stratums and the general layout of the geographical aspect until we can almost lay our hands on the stuff."

"That's some science," I said admiringly, "to figure it out that fine and never even see the locality. But, it seems to me, I'd have rather located a gold-field or a diamond mine, while I was at it. A clay bank is sort of—er—tame, don't you think?"

"There's a mint of money in it, though," he maintained stoutly. "We'll organize a company and build a plant that'll employ thousands of men. And think of the work it will provide, all over the country, for men to mix and lay concrete. Buildings, walks, walls, pavements, monuments—it's a great benevolent enterprise, providing work for your fellow men, Horace! D'you know where I can hire a pony to ride? I'll get busy prospecting."

I referred him to the entire village of Wakickewa and its adjacent rural environs, and told him to hire any pony that he thought would fill the bill. There were several to pick from, no doubt; if he'd take the trouble to look 'em up.

Pleased with my masterly insight, my quick perception, and presence of mind, et-cetera, Honk started out to secure a steed. An hour or so later, he returned in the company of a ratty-looking, lop-eared plug of a dull mauve color and of a thinness bordering on transparency.

"You wouldn't exactly call this horse pretty," he said, marking my mild amusement. "But I got him reasonable. I'm to feed him for the use of him."

"Something on the order of a mine," I said. "You have to develop the property before you can realize anything on it. I'd be careful of him if I were you," I advised. "He has a mean eye."

Honk laid in a supply of oats, corn, hay, bran, and condition powders, and quartered his palfrey in the tumbledown stock-pen some roods to the south'ard of the depot. Daily thereafter he jogged promiscuously over the surrounding landscape of hills and hollows, in the quest for his cement-mine.

Sometimes he left at daybreak and did not return until after dark. He seemed to get a great deal of enjoyment out of the thing. His horse being regularly fed and watered—a state of affairs that had that half-starved animal guessing, no doubt—began to pick up in flesh and moult his coat of unkempt wool.

A day came when Dobbin bloomed out in a sleek summer suit of dappled gray. He was as capery and proud as if he'd sud

denly fallen heir to a pedigree. And he simply neighed by Honk—which proves that the equine heart is reached via the stomach same as a man's.

Dobbin never had much use for me, though. He had a way of rolling his eyes and cocking one ear at me, like he'd just as lief as not slip me a couple of hoof-prints to remember him by.

Soon after Honk's arrival, we fitted up the freight-room of the Wakickewa depot for light housekeeping. We put in a cooking-stove, table, two chairs, and a line of skillets and pans bought at a farm sale for about one bar of a popular song. Then we built a Pullman section to sleep in, from odds and ends of boxes and lumber, and with a borrowed saw and hammer.

It was far more homelike than boarding, and not nearly so expensive. By purchasing eggs, butter, milk, etc., from the timothy-chewing denizens of the neighboring hills, we saved the middleman's profit. My forty-five dollars a month was the sole resource of the concern at that particular time, and, as Honk's equine protégé was eating eighty cents' worth of feed a day, it didn't take a graduate of a business college to determine the end of the horn from which we were going to emerge in the course of time, if we had good luck.

"Of course, I have a considerable stake—about six hundred plunks—salted away on a time certificate of deposit, drawing four per cent," Honk reassured me, "but when we find our cement-mine site, we'll need that; so, for the present, you can handle the running expenses, Horace. That'll be our part of the undertaking."

"All right," I said. "But I hate to work hard, day in and day out, foregoing my champagne and cigars and other little luxuries of life, just to fatten up a glass-eyed horse that doesn't even look at me with respectful civility."

Day after day Honk rode forth blithe-

HONK HAD CAPTURED A "WITHOUT VISIBLE MEANS OF SUPPORT" OF THE FIRST MAGNITUDE.

somely, and night after night he reviewed the progress made. He was ever on the verge of nailing the great discovery that was to make Wakickewa famous and us rich, but, somehow, he never actually lit on the exact spot.

Occasionally the conversation reverted to Valhalla—a subject on which Honk was particularly vindictive.

"The Transcontinental played you a low-down, scurvy trick," he'd growl, "but I got even with 'em; I quit 'em cold. I left 'em in the soup, plenty and proper. They sent out a high-schooled kid to take charge when I quit, you know. Some chump with a brain like a chocolate éclair, but kin to the directorate, I presume. No doubt he's got Valhalla on the greased slide that leads to oblivion ere this; at least, I hope he has. Why, Horace—"

"I'd like to be back in the old Medicine House to-night," I'd sigh drearily. And then Honk would gaze grimly out of the window and say no more.

We'd been slopping along in this manner nearly a month when the family in the Wakickewa station was augmented by one. One more mouth to feed—and I was still getting forty-five a month. It happened suddenly, as the man said when lightning struck him.

I've noticed that most things of any consequence do happen all in the twinkling of an eye. Head-on collisions, earthquakes, elopements, panics—even fame and fortune, or disgrace and bankruptcy, as the case may be, may overtake and smother you in a single night.

I FED HIM CHICKEN BROTH WITH A SPOON.

Honk set out that morning with his responsibilities burdening him but lightly. He whistled a ragtime tune and said he was intending to ride some twenty miles or so that day.

"I feel it in my bones that to-day's the day we strike pay-dirt," he remarked. "Watch for us coming over the hill and have a good supper ready, Horace. And, say—by jinks! Let me have what chewing you've got in your pocket, will you?

I forgot to get any; and you're here handy. You can run across to the store any time."

I surrendered what I had, but I made him ride alongside the platform to get it. I also had a feeling in my bones—about being kicked in the face by a gray horse.

Somewhere near four o'clock my glance rested on the distant road winding to the top of the hill. I saw Honk returning—on foot. He was plodding beside his goodly charger, on whose back was perched an uncouth figure. The progress of the cavalcade was slow. I had plenty of time for speculation as to what had happened before they came up. Whatever conclusion I arrived at before they did, however, fell considerably short of the actuality.

Honk, to all intents and purposes, had captured a "without visible means of support" of the first magnitude, a Weary Willie of the purest ray serene. The man was about my size and he'd had a shave within the week, but his general appearance was desultory, not to say helter-skelter.

He had no hat, his coat was rent and torn, his trousers dirt-caked and speckled with clinging weed-seeds, and—most noticeable of all—his clothing, from the waist down, was soaked with dark stains that looked like blood.

The pallor of his face and hands seemed to indicate that the blood had come out of his own supply, and the man was clinging to the saddle only by good luck. So far as any tenacity or dogged purpose was concerned, he might just as well have fallen off a time or two, coming down the hill; there wasn't anything to prevent him.

I took his shoulders, and Honk the lower half of him, and we lugged him into our drawing-room, where he promptly fainted and forgot his troubles.

"Well," I said, surveying the exhibit. "What is it, and where'd you get it? Is that the pay-dirt you spoke about?"

"Found him about ten miles from here," Honk said. "He was bleeding to death from a gunshot wound in the left leg. An artery clipped—maybe the femural, I couldn't tell. I tied it with a twine string. He's badly hurt, all right; he'd have forded the dark river in a little while longer if I hadn't found him when I did. It was a lucky—"

"Who is he?" I asked. "Who shot him?"

"Since you mention it, I don't believe he gave me his name and address. I believe he said he was out deer-hunting, and his horse threw him off in a thicket and broke away from him, and a tree-limb got tangled up with his rifle, which went off, and did the rest. Now you know all I know."

I was engaged in heating water and preparing bandages by the time Honk concluded. I afterward found that I'd torn up one of Honk's best shirts in my hurry.

"He looks like an undesirable citizen to me," I said, "but of course we'll do what we can for him. Is the bullet in his leg?"

"Nope," said Honk. "It went on over in the next county; must have been a 30.40, from the looks of the hole it made. I wonder if Willie has croaked," he added, stooping to examine the still form on the floor. "If he has, I'll call it ungrateful of him, after me bringing him ten miles to save him."

I knocked off bandage-making until he determined whether or not the man had slipped off his mortal coil and ducked across the river while we'd been parleying. He hadn't. He was still on our side of the creek and hadn't double-crossed Honk, so we set about Red-Crossing him according to the best authorities on backwoods surgery.

This process being neither thrilling, amusing, nor heart-interesting, there's no use trying to work it off as literature. Pass it up!

By sundown, we had Willie the Waif bolstered and bandaged up, in Lower 1, with his breath smelling of "bitters," and a wan smile enlivening his waxen facial expression as I fed him chicken broth with a spoon. He had fallen in the hands of the Samaritans.

That night, as well as several succeeding ones, Honk and I flipped nickels to see who'd occupy the upper berth, and who'd sleep on the baggage-truck.

Our patient recovered his health and strength without any serious complications or delay. Within a week he was able to hobble around on the crutches Honk made for him out of a couple of pitchfork handles. He was able to hold down his end of the eating long before that.

Between Willie and Dobbin, I could see the poorhouse staring me in the face. The man didn't seem in any hurry, when he attained the convalescent stage. His complete recovery seemed to hang fire at that point. He just sat around with his whole

vital energy and being focused on eating. It was like trying to fill the proverbial barrel with both ends knocked out, to satisfy that man's craving for food.

At no time during this period did Willie disturb himself about volunteering any information regarding his former life or his ambitions and plans for the future.

He appeared to like the place, my cooking pleased him, and nothing seemed to be crowding. To the Man up the Tree, it looked very much like Willie had fallen into what is commonly termed a "pudding." I mentioned this phase of the situation to Honk one evening, when I had come away from a cleaned supper-table, still hungry.

"You and your horse and your anonymous friend from Nowhere, seem to think I'm Santa Claus," I said. "You three are having the time of your lives—at my expense. What do you take me for, anyhow? Lady Bountiful, or what?"

"My dear Horace," said Honk, with a pained look. "Are you tired of seeing me around? If so, I'll go, Horace. I'll pull out to-morrow."

"You needn't commence to cry about it," I continued, unmoved, "because your tears won't affect me in the least. And if the three of you think you can blandy me into feeding you, on and on, here forever, without a word of protest, you'd better consult a specialist; that's all! You've got something the matter with you that needs looking after. I'm not running no Foundling's Home."

We wrangled about it for quite a while. Honk said he'd taken a liking to the fellow whose life he'd saved, although he didn't know much about the man's history.

He said he thought it was no more than common humanity for us to get the fellow on his feet again before we turned him out. As for Dobbin, the horse—he declared that a few days, at most, would settle the question of the clay-deposit. He was bound to find it, now, most any time—and then Dobbin's services would be no longer required.

"Possess your soul in patience, my boy," he said, "just for a few days longer, and then we'll have the world by the tail. We'll look back, in days to come, and laugh about this period of depression. It'll be a great joke."

"Ha! Ha!" I barked mirthlessly. "I'll look back and see what a gump I was, when I'm drumming at back doors for handouts. But, all right! I've got a dollar or two left, and next Thursday's payday. I'll see you all through."

Willie the Waif was getting able to walk pretty well on his game leg. He took a marked interest in Honk and his multitudinous schemes and theories. They got as chummy as two old soldiers on the same park-bench.

Honk explained, and enlarged, and expounded; telling what he and I could and would do, if we had half a chance, and vowing that we'd scare up a chance, or leave it in such a fix that nobody else would—while Willie listened. He was the best listener I ever saw.

I think it was this happy faculty in the man, of evincing a breathless interest in everything I'd tell him, that finally endeared him to me. He'd sit by the hour without saying a word, and let me tell him what a crackerjack I was. I taught him how to play several new games of single-handed cards, or solitaire; and in return he'd mind the station for me while I went fishing.

Life doesn't trickle along in a certain gutter forever, though, and one day a letter came for Honk that upset the routine. It was from his scientific traveling-companion, Professor Magillicuddy, and it put a sudden and summary quietus on Honk's search for the chalky-clay deposit that was to lift us out of our morass.

"I have gone over our joint calculations and conclusions," said the professor, "and I find that a serious fault exists in—" So and so and so forth and so on.

There were three or four pages of tiresome details. To sum up, he said that the cement mine wasn't in the vicinity of Wakickewa at all. Instead, it would be found somewhere in the township, range, and section adjoining the town of Webster's Cross-Roads, in Central Kansas.

Honk fumed and swore and tore his thatch for upward of an hour; later, he relapsed into a melancholy silence that extended through the orgy of supper. He ate little or nothing.

Even Willie lacked something if his usual gusto and enthusiasm for food. These alarming symptoms in my two best boarders so affected me that I made a sneak across to the store and bought a can of salmon, some sweet-mixed pickles, and crackers to accompany 'em, with the idea of tempting their wavering appetites.

They perked up enough to devour these tidbits, but the same did not dispel Honk's gloom.

"Well," he growled finally, "I guess I'll dig out of this one-horse burg; there's nothing here for me. I believe I'll hit for Panama, or the Philippines, or Alaska—"

"Or Bombay, or Bloemfontein," I suggested.

At this point Willie broke a three-days' silence. He swallowed the last bite of the only remaining pickle, reached for a cracker and remarked:

heard him jerking and kicking the surprised Dobbin to an accompaniment of brutal "whoas" and "standaroundtheres!" And, finally, we heard him leading the horse away.

Willie pondered the matter over in his mind for a considerable spell without audible comment; he seemed reluctant about coming to any definite conclusion, but the fact had apparently penetrated his skull, at length, that Wakickewa wasn't a Home for Little Wanderers.

He, too, reached for his hat—one Honk

MY OWN EXPERIENCE DRILLING ALONG A FORLORN STRETCH OF WEED-GROWN TRACK MOVED ME TO A FEELING OF PITY.

"What do you want to go away for? Ain't we living easy here?"

Honk gawked at him for a minute without speaking. When he did speak, I thought I detected a tinge of irony in his tone.

"Hear that, Horace?" he sneered. "'Ain't we living easy?' Wouldn't that spoof you? Sitting around here, mooching our grub, and then brag about living easy. That's too much! That's rubbing it in! Ain't we living easy! Waugh!" and Honk clapped his hat on, and flung himself out the door toward the stock-pen, where we

had given him—and, after thinking the matter over, moved toward the door.

"So-long, friend," he said. "I guess I've wore out my welcome here; so I'll be hitting the grit."

"Which way you think you'll go, Willie?" I asked unconcernedly.

"North," he returned briefly. "I'll walk to Cotton Junction, six miles, and catch a freight on the Katy, maybe."

"Nonsense!" I said. "You needn't be in such a hurry. You can get a train out of here about daylight. I'll square it for you with the con."

FOR THE FIRST TIME IN THE HISTORY OF WAKICKEWA THE FLIER STOPPED THERE.

But no! Not a minute would he wait. He was one of these guys that hang fire on a decision a long time; but when they do cut loose, they go all at once.

I followed him along the platform to the mail-stand. There we shook hands and murmured our sad farewells. He limped off up the track, the cinders crunching under his worn-out shoes. It was dark and lonely. Something of my own experience drilling along a forlorn stretch of weed-grown track moved me to a feeling of pity.

"Wait a minute, Willie," I called, and trotted after him.

"Work's hard to find," I said, kind of embarrassedly, "even when a fellow's hunting for it. And the world is a cold, unfeeling place to be in when you're up against it. Take this," I said, pressing something in his hand. "It'll come handy, maybe, before you get where you're going."

It was a ten-dollar bill. I had plenty of other uses for it, but I figured that if he should hang around Wakickewa another month he'd get its value anyhow, so I might as well fork it over.

He displayed some emotion for once, I'll say that. It got away with him. First, I thought he was going to refuse to take it, but he kind of grinned foolishly and choked up and said he'd pay it back and all the sort of stuff people say on the spur of the moment—and then he tucked it away in his ragged raiment, like anybody would, and philandered on his weary way.

Honk slouched in during the next hour and said he'd returned the good steed Dobbin to its legal owner, thereby ridding us of one needless expense. I thanked him kindly. Later, I mentioned that Willie had gone off in a huff at his thoughtless remarks after supper.

"I'm glad of it," Honk said cheerfully. "We couldn't have him around here forever. He'd eat us out of house and home! The monumental nerve of the guy, anyhow! Huh! You're too easy going, Horace. You'd have let him stay here till Christmas if I hadn't taken the initiative. To-morrow I'm going to see about starting a shingle-mill here in Wakickewa."

Honk's buoyant spirits had returned. I

was glad of that, for I do like to be around a sorehead—not!

At four-thirty the following afternoon a startling thing happened.

For the first time in the history of Wakickewa, the flier stopped there—actually paused in her headlong dash for the South, and let us see what she looked like. She frequently whistled for our town, but fifty miles an hour was as near as she'd ever come to slowing down during my reign.

On this momentous occasion, she actually came to a dead standstill. Not only that, but a gold-braided brakeman swung off, opened the rusty switch, and without "by your leave" or anything, gave 'em two fingers, daintily, and they backed a palatial private car into our siding.

Leaving the same, they scooted out on the main line again. His grace relocked the switch and away they went, in a shower of cinders and a flutter of pink ribbons.

The car was the "Ourmaline"—parlor, library, boudoir, buffet, etc. Her shades were drawn, but we noticed the gentleman of color (in white) who had charge of the sub-cellars, peeking out of the diamond-shaped window in his department.

Another chromatic gentleman, the porter, showed himself on the brass piazza and undid the portcullis. And then—Honk and I were all a twitter with excitement, d'ye mind! A natty personage in a correct business suit dropped off, and, limping slightly, came over to where we watched and waited.

It was our late boarder, Willie.

Willie, but oh, my! All haberdashed and groomed up like the Fairy Prince. He was the Fairy Prince, in fact, for he'd come to propose to us a proposition. To square up his hospital and board bills, as it were.

"Honk and Horace," he said, shaking hands and slapping us on our backs. "My two good friends—listen to me! I owe you boys more than I'll ever be able to pay. You saved my life, you nursed me, boarded and lodged me and loaned me money, neither knowing nor caring who I was.

"But I was studying you fellows all the time. I found out a lot of things, besides having the time of my life. I found two men that I can tie to. I do not regret my accident nor how near it came to getting me nor anything else, since it was the means of my finding the two men I want. I'm not paying my debt very well—it's more like the other way around—but, well— I happen to be the president of a big trunk line—one of the biggest in the country."

He read my thoughts at that moment, for he looked at me, grinned, and said:

"Oh, I got word to my friends, all right, the second day after you boys cobbled me up. I used your wire, Horace, while you went to the store. I told them to keep away and let me alone; I was on a lark.

"But here's what I'm trying to say: There chances to be, on our line, a growing little city. It is lively and up-to-date and in the midst of a prosperous section. We have large interests there, and we need a couple of wide-awake young fellows like you two to handle the company's end of everything.

"The salaries for such work would be—" He named a sum for each of us that sounded like there was something to it, after all. It was more money than I could spend at a moment's notice.

I looked at Honk; Honk looked at me.

"Could we have a—er—box car fitted up to live in?" Honk ventured. "I've got so many traps, a boarding-house—"

"A box car!" cried Willie. "No! You can't have a box car! But, by the great jumping Jupiter! you can have the finest parlor car on our lines, remodeled to suit you, and yours to command!"

"Then, b' jinks!" Honk returned, with enthusiasm. "We'll take the place. We'll name the car 'Medicine House II'—eh, Horace?"

"And you, Horace," said Willie. "You loaned me ten dollars, once. I've got it safely put away. I'm going to keep it for luck. But, never fear, I'll pay it back with interest. What boon will you choose? Name it!"

"What I'd like best of all," I said, after due deliberation, "would be a concert-grand phonograph. One that plays 'grawnd oprah'—"

"Done!" cried our future boss. "Now, we'll go over and have supper in the car. There are some others over there I want you boys to meet. Some of the Transcontinental family, you know—"

"The Transcontinental?" said Honk. "The Transcontinental! Er—er—what's the name of this town we're going to?"

I was shock-immune and amazement-proof by that time, else I never would have survived Willie's answer to that question.

"You're going to Valhalla," he said. "Valhalla, in the Mystic Hills!"

THE SWITCH-TENDER.

BY C. J. BYRNE.

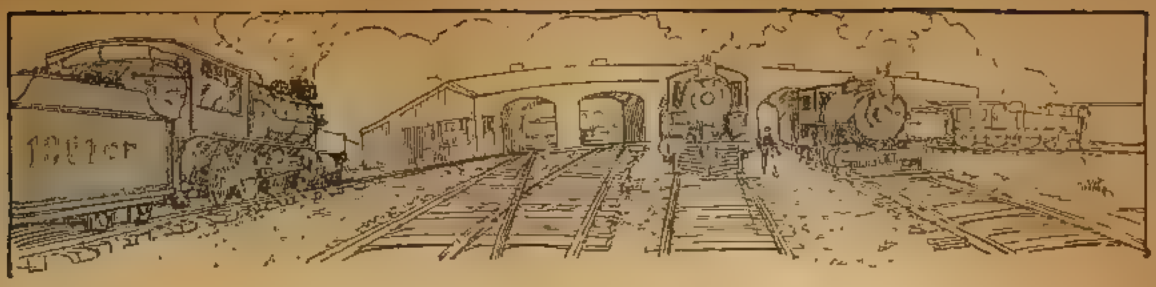
Written for "The Railroad Man's Magazine."

A LITTLE red shack built close to the track,
With a window in either end;
A little red door and ten feet of floor,
And plenty of switches to tend.
A little old man with only one hand,
And a little old pipe made of clay,
And a little old smile from old Erin's isle—
He's a happy old fellow all day.

In that little shack built close to the track,
There are memories of bygone years;
When youth and its prime was all summer-time,
Now gone amid sorrow and tears.
When this little man with only one hand,
In the days of the old link and pin,
While coupling up cars was caught in the bars
And the iron hand of fate "turned him in."

In that little shack turn life's pages back,
When youth to success looked ahead;
Since those balmy days the future's bright rays
Have changed like the hair on his head.
As he sits there to-night in the glare of the light
That shines through the little stove-door,
You can easily trace, by the lines on his face,
The sadness and gladness of yore.

When you come along and the switches are wrong,
And the lights all around you are red,
Don't curse and abuse, and shout and misuse,
Have respect for that weary gray head.
For that little man with only one hand
May soon pass away from your view;
And the iron hand of fate may not hesitate
To make a switch-tender of you.



Keeping House for the Railroads.

BY TOM JACKSON.

WHAT do you suppose a housewife would do who finds the cares and responsibilities of a nine-room cottage a burden if she were asked to keep house for a railroad? Think of the thousands of trains constantly on the move, each a sort of a home in a way, requiring many of the duties of the ordinary housekeeper to maintain order and comfort. Keeping track of grocery bills and pantry shelves probably ceases to be a feminine occupation when the bills foot up into the millions, and when the greater part of the housekeeping is done by well-drilled clerks, clever buyers, and shrewd men who know how to drive bargains.

Facts and Figures Which Show How a Railroad's Household Expenses Compare with Those of the Average Family and Which Reflect Credit on Man's Knowledge of Domestic Economy.

A RAILROAD has a great many other things to do besides seeing that each traveler gets a lower berth in a sleeping-car and testifying before the Inter-State Commerce Commission. One of these duties is the humble but highly important one of keeping house.

This is not to be taken in a Pickwickian sense, but accepted literally. Every detail of the round of duties which any good housekeeper performs daily for her household is carried out on a railroad system, only on an infinitely greater scale. The work is interesting, not merely because of its magnitude, but also because it is carried on, not by the sex especially endowed by nature in that direction, but by men.

So much has been said about woman's success in usurping man's occupations, it is no more than fair that attention should be called to the signal success which railroad men have achieved in housekeeping. That housework is extremely well done on any first-class railroad can be proved upon the testimony of any traveler thereon.

To begin with that branch of housekeeping of liveliest interest to the traveler, namely, cooking, we find that in one year the Rock Island Railway served meals to 419,439 persons in dining-cars and to 930,096 persons in hotels and restaurants operated by the company. That would be equivalent to cooking for a family of 1,232 persons who not only never missed a meal in the whole year, but which had friends in to dinner on four hundred and ninety-five occasions.

The Canadian Pacific Railway has a much larger family; for, in addition to its great mileage and more than usually large number of hotels, it operates fleets of steamships on the Atlantic, the Pacific, and the Great Lakes, and steamboats on the lakes and rivers of the Far West. The hotels serve, on an average, fifteen thousand meals daily, while the steamship department serves sixty thousand and the dining-car department 3,500.

Including shop employees, who are supplied with excellent hot lunches at nominal prices, the company serves, on an average, 100,000 a day. In a year the grand total foots up 36,500,000 meals. To put it another way, this would be equivalent to cooking for a family of 33,333 persons. Such a family would require a city the size of Springfield, Illinois, Topeka, Kansas, or Sioux City, Iowa, to house it properly.

It is no sinecure to provide for the great family of travelers which looks to the railroad housekeeper for its sustenance. If all appetites continued at home on the same scale to which they develop when traveling, many a hard-working head of a family would be driven into bankruptcy or a premature grave. To supply the hungry hosts on one of the big Eastern lines one year required 50,000 barrels of flour, 2,500 beeves, 80,000 chickens, and 50 carloads of other provisions.

No growing child ever developed a greater propensity for a "bite" between meals than the average railroad passenger. The railroad housekeeper has just as much trouble providing "bites" for his charges as any harassed mother. Even the prodigious quantity of provisions mentioned did not satisfy the passengers on the road in question, for they also consumed a million sandwiches, a million pounds of fruit, and half a million pounds of candy between meals.

A Hundred Thousand Meals a Day.

This, it must be remembered, refers only to what was sold in cars and at railroad eating-houses and lunch-counters. It does not include the prodigious quantities of provisions consumed at independent hotels and lunch-counters on the journeys.

Nor is even this all for the railroad. When the average passenger cannot possibly eat another mouthful, he chews gum just like the troublesome little boy at home. In one year the Santa Fe gathered 1,150,000 pennies from its own slot machines for vending gum.

Two housekeepers out of three are wont to declare that they don't mind cooking, but that they do hate to wash dishes. Perhaps all such persons may be more reconciled to the task of washing their few dozen dishes daily if they will reflect that the serving of the Canadian Pacific's hundred thousand meals a day entails the washing, in the course of a year, of 985,500,000 pieces of china, glass, and silverware, to say nothing of the usual proportion of pots and pans, which are the particular "*bête noire*" of most housekeepers.

The housework on the Canadian Pacific is divided among 1,400 employees in hotels, the same number on steamships, and 600 in the dining-car department, which operates 65 dining-cars, making a total of 3,400 men. This, however, provides for only a part of the stupendous task. There still remain the sleeping-car porters, who make up beds and keep the cars in order on the road, and the army of car-cleaners, who perform every day what is analogous to the annual house-cleaning of the private home. Finally, there are the offices to be cared for.

Driving Away the Dirt.

Some idea of the magnitude of this great task may be gathered from the fact that in the fiscal year ending June 30, 1907, 102,000 cakes of ordinary soap were consumed in the effort to keep the New York Central clean. That same laudable endeavor also required 31,200 common corn brooms, 6,600 rattan-filled brooms, 1,800 hair floor-brooms, 372 hair window-brushes, and 22,162 mops.

The Santa Fe housekeeper uses 26,000 common corn brooms, 25,000 scrubbing-brushes, and 20,000 cases of soap in a year.

In purchasing supplies for such extensive operations, the railroad housekeeper must exercise the most rigid economy. This means that life is one long bargain-day for the purchasing-agent whose sole duty it is to buy the articles required for keeping a railroad in order. For ordinary supplies, under normal condition, no bids are asked. The purchasing-agent is obliged to know to the fraction of a cent how much the current prices on standard articles can be shaved.

Sometimes the supply dealers get together

in secret conclave and sign an iron-clad agreement, with dire penalties for violations thereof, to keep prices up; but that does not worry the purchasing-agent, for he knows from long experience that before the ink is dry on the agreement each of the parties thereto will be making surreptitious calls by way of the back entrance to quote him inside prices several notches lower than those named by the combine.

Work That Is Never Done.

As soon as the supplies are paid for the purchasing-agent's responsibilities end. The supplies are shipped to the general storekeeper, who distributes them among the division storekeepers, who, in their turn, dole them out to members of the army of help which does the housework. Not so much as a cake of soap can be issued without a requisition signed by the constituted authority, who may be almost any one connected with the road, according to the circumstances of the case.

When supplies run out at division stores the storekeeper himself makes out a requisition, which he then starts on its travels by easy stages up to headquarters. By the time it reaches the purchasing-agent it bears signatures enough to stock an autograph album, and has been checked and altered and had notations entered upon it until it looks like a war map at the end of a hard campaign. In the course of time, though, the storekeeper will get his supplies, and the housekeeper's work, which is never done, on a railroad any more than it is anywhere else, continues on its weary round.

Regulation Car Cleaning.

As an example of the cost of railroad housework, it may be said that the Rock Island system, in the fiscal year ending June 30, 1907, spent $39,369.96 on passenger-cars alone. That the thoroughness of the work may be properly appreciated, it may be well to give some details. The housework is uniform all over the system. Car-cleaners are not permitted to exercise discretion, but are required to work up to a uniform and exacting standard. This applies to all first-class railroads.

When a Rock Island car comes from a run it is sent to the cleaning tracks, where all the windows, doors, and ventilators are opened and all matting, carpets, upholstered seats, and back-rests are taken out for mechanical cleaning.

The car is then very thoroughly swept, or, if it be at any of the more important places, it is blown out with compressed air. Next, the floor is scrubbed with soap and water to which lye or some other cleaning agent has been added. After this the floor is mopped with a one per cent solution of formalin, which is the ordinary thirty-five per cent solution of formaldehyde, to destroy all lurking disease germs. The job is finished by wiping all arm-rests, window-ledges, the panels between windows and the walls of the car with a damp cloth.

Head-linings, which are the interior surfaces of the car roofs, and other inside finish are cleaned every three months, or oftener if necessary, with a sponge and a weak solution of soap and distilled water. They are then dried with chamois skin and rubbed down with renovating oil and white waste. Cuspidors and other sanitary conveniences are rigidly disinfected with formalin after a thorough scrubbing.

With the Day-Coaches.

Water-coolers are washed out after every trip—a rule which might advantageously be copied in many an office. Platforms not covered with rubber and floors of coaches not carpeted by aisle-strips are painted with floor composition at least once in six months, and as much oftener as may be necessary. Steam-pipes are bronzed or painted as often as may be necessary, and iron hand-rails are painted black at least once every three months. All brasswork is cleaned with oxalic acid, whiting, and water, and polished with putz pomade as often as necessary to keep it in good order.

Besides the cars, there are on the Rock Island system upward of two thousand buildings, consisting of office, shop, and station buildings, hotels, and eating stations and interlocking plants to be kept clean and in order by a force of janitors employed for that purpose and entirely independent of the car-cleaners, to say nothing of about 350 section-houses in which section-men employed in track-work live, and which are kept in order by their families. Altogether, it takes $4,000 worth of soap to keep the Rock Island clean for a year.

The good housekeeper, whether in a private home or on a great railroad system,

must keep refrigerators properly cleaned and filled with ice, and a supply of drinking-water always on hand. On the Rock Island this requires 50,000 tons of ice a year, which costs on an average $2 a ton.

Then there is the coal bill, a serious matter anywhere. The Rock Island uses for heating purposes some 3,000 tons of anthracite a year at an approximate cost of $21,000. This, however, by no means covers the entire consumption of fuel for heating cars and stations, as at some points bituminous coal is used, the account for which is not kept separate from the fuel bill for locomotives. At some stations heat is supplied by a steam plant which uses bituminous coal.

Railroad Wash-Days a Week Long.

Wash-day is just as important and just as troublesome for the railroad housekeeper as any other housekeeper. Only on the railroad there is so much washing to do it can never be finished on Mondays, but must be continued through every day of the week and every week in the year; and the railroad housekeeper cannot mitigate the drudgery of wash-day by serving a boiled dinner. The hungry travelers who constitute his family will not tolerate boiled dinners. They insist on having just as good meals on wash-day as on any other day.

A railroad's washing includes a long list of articles to meet the requirements of sleeping, dining, and official cars, hotels, and offices. Household linen is used more freely than is necessary in the case of a small family. For instance, a sleeping-car takes out, for a run of a single night, a suit of linen consisting of a hundred each of sheets, pillow-cases, and towels.

On most American railroads the laundry bills for the sleeping-cars are paid by the Pullman Company, which operates the cars; but, even with this important reduction, any one of the larger standard systems would be glad to get off with a laundry bill of $25,000 a year. It costs the Canadian Pacific, which operates its own sleeping-cars and a fleet of fifty-four steamships and steamboats and a long list of hotels, five times that amount.

A Valuable Junk-Pile.

Like his cottage prototype, the railroad housekeeper drives many a sharp bargain with the ragman. On the railroad, however, the ragman does not arrive with horse and wagon in the last stages of senility heralded by a string of discordant cow-bells. No, indeed; he comes with a full train of flat cars, and even at that he has to make many trips to gather up all the old rails, old wire, old pipe, broken castings, worn-out locomotives and other machinery, and discarded ties.

When he took his last train load away from the New York Central lines last year he left that company richer by the tidy sum of $1,728,840.87, which, it must be admitted, would furnish a generous allowance of pin money for a good many housekeepers. The Santa Fe's junk swells the receipts of the company $1,250,000 a year.

IMPORTING RAILROAD TIES.

RAILWAYS are face to face with the rather dismal fact that ties are beginning to be imported to this country. Forest-fires, the prodigal waste of forest timber, is in a large measure responsible, and the recent announcement from Washington is very significant that the first consignment of railroad ties from Australia to the United States is on its way to Rodondo, California, the ties being 66,000 in number.

Owing to the extension of railways in the Los Angeles section, and the constant rehabilitation of established lines, a large percentage of the ties used there are from the California redwood-trees

At one time, quantities of oak-ties were received from Japan, one steamer alone bringing over 95,000. These were bought at a time when they were obtainable at an unusually low figure, but when prices are normal they cost much more than the redwood ties, freight included, and are no better.

The redwood ties cost from fifty to eighty cents each, the prices being subject to wide fluctuation. The life of this tie is from ten to thirty years, according to the character of the soil in which it is placed. An untreated pine tie lasts from five to six years.

Last year there was an increase of ten per cent in the number of ties laid in this country, as compared with the preceding year, the total being 153,754,000, which cost $60,321,000.

It is significant that in 1909, 16,437,000 ties were bought for new track, as against 7,431,000 in 1908, and 23,557,000 in 1907. During the first-named year, oak continued to lead by a wide margin all other kinds of wood used for cross-ties. —*Railway and Locomotive Engineering.*

DR. JOURDAN'S MYSTERY.

BY C. W. BEELS.

A Case in Which a First-Class Crook Seems To Be Very Much in Demand.

CHAPTER I.

We Meet "Level Larry."

NOW, the newly appointed police commissioner, wishing to give excuse for his official existence, caused a general and totally unnecessary shake-up in the department. One of its consequences was the transfer of Sergeant Lawrence Phelan—known to his acquaintances of the upper- and underworld, from the financial district at headquarters, as "Level Larry."

When the news was announced the "Street" lifted up its voice and dictated to its typewriters and sent multitudes of expostulating and protesting letters to Mulberry Street, where the Power behind the shake-up was then located. Sergeant Phelan had served well and truly for seven years below the "dead line." During that period he had done much to keep the district clean of crooks. He was the unceasing enemy of those who rented offices and those who didn't. There were not wanting occasions when his bank-account might have increased had his sense of duty diminished, but the ingrained integrity of the man militated against even the slightest consideration of such opportunities. Level Larry came as honestly by his sobriquet as he did by his dollars.

A good many of those dollars—in fact, the bulk of them—were the result of the tips and advice that were given him by people on the inside, with whom he came in daily and professional contact. Indeed, when the shake-up arrived, Phelan was the owner of a competency, the size of which would have warranted him in obeying his first impulse—to tender his resignation after telling the commissioner that he was a brass-bound, assorted sort of fool, or something to that effect. After talking things over with Mrs. Phelan, however, he did not. He reflected that in five years' time he would retire on a pension, and that no cod-headed superior was worth the sacrifice of such a reward.

"Larry," said Colonel Amos Nugent several days before the shake-up went into effect, "what are you going to do with the money that you've made down here?"

The colonel was a big, red-faced man from Arizona. His specialty was mines, and his delight was trotting horses—the former genuine and the latter fast. He had a peculiar dislike for motor-cars.

Phelan had earned Colonel Nugent's gratitude several years before by running out of the Wall Street district a gang of crooks which operated with bogus properties that were allegedly located in the colonel's State. The little conversation here quoted took place in the colonel's Broad Street office.

"Upon my soul, sir," replied the detective, "I've given no thought to it. 'Tis safe in the bank at four per cent, and there 'twill lie till the need comes for using it."

"Good! But a word with you. As you've made the money by the Street, don't lose it by the Street. Keep away from us, Larry. There's much difference between playing a friendly tip and playing your own judgment. The tips that have come your way have been in return for your professional favors. When you're out of the Street, you'll be treated just like the every-day lamb if you come bleating back to these pastures. Sure, boy! So, if I were you, I'd make up my mind to never come below Fulton Street with more than the price of the cigars with me. I've given you one or two good pointers in the past—the *best* I'm giving you now."

Larry Phelan nodded understandly.

"I believe you, sir; and, what's more, I'll abide by what you say."

"If ever the time comes that you want to make an investment," went on the colonel, "and I know what I am talking about, there's one thing you can put your whole outfit into—blanket, burro, and grub-bag—and feel rock certain that the ball will fall on your number."

In his youth the colonel had lived in an atmosphere in which faro and roulette, guns and sudden demises, prospects and fortunes unearthed by the blow of a pickax, were ordinary features.

"It sounds good, colonel. It must be United States bonds, or — or — something you have in the Southwest."

A gleam of humor twinkled in the detective's eye as he spoke.

"Nope, sir. Neither one nor the other. What I speak of is right here—New York real estate in localities where business demands the use of what now are private residences. Property of this kind yields a satisfactory return at the present, and will prove to be an Ophir-Mount in the future," and the colonel banged his fist on the table as if to drive home his assertion.

The Ophir-Mount was the name of the colonel's favorite and best-paying mine. He put it on the same plane with the eternal verities.

Phelan's face expressed his entire accord with the colonel's views.

"That's the very thought that I've had these many years," he said. "In fact, the wife and myself have talked it over and over. But—well, we don't want to put our property—if we had any—into somebody else's hands and let agents' fees and repairs and fly-by-night tenants and all the rest of it eat up the profits and, perhaps, some of the principal. And we don't quite see how we are to run a house while we're waiting for somebody to come along and buy it for a store. And—"

"Look here, Larry," interrupted the colonel, "you have another talk with Mrs. P. Then, if you still think favorably of the idea from an investment view-point, come to me and I'll post you about details. It isn't generally known perhaps" — the colonel grinned expansively—"but I've a stake in New York properties as well as in these farther West, so I'm not shooting off blanks."

Sergeant Phelan acted on the financier's advice, and three months later he took title to a four-story-and-basement brownstone house in the upper forties of Manhattan. The house, which was a few doors east of Sixth Avenue, was patterned like unto every one of its neighbors on the block, the architecture dating back to the time when stages ran on Broadway, when crinolines were worn by one sex and Dundreary whiskers by the other.

The Phelans furnished the house comfortably. Retaining the basement and second floor for their own uses, they let the first floor to a dentist, and the rest of the rooms to men, almost all of whom were friends of the sergeant. Mrs. Phelan, who was a thorough housewife and capital manager, made the place pay and her patrons comfortable, in spite of the fact that the first floor seemed to have a hoodoo within its walls.

The dentist couldn't draw customers—or, rather, enough teeth to make a living. There followed him, in quick succession, a dressmaker, a milliner, a health culturist, a teacher of languages, a ladies' tailor, a dealer in stamps and coins, and a professor of elocution.

After the going of the elocutionist the floor remained vacant for several weeks.

One day Richard Robert Jourdan, M.D., became its tenant. The doctor was young, tall, gaunt, and homely, yet having withal a pleasant, resolute face. His chin and eyes were dominant—the former by reason of its breadth, the latter on the score of their eagerness. Somehow or other, when you met Dr. Jourdan you felt that he was a man of unattained purpose, but that attainment surely awaited him.

Dr. Jourdan sat down to build a practise. Tedious enough is this process, even when one starts with a nucleus of friends and relatives. Soul-trying, even heart-breaking, when attempted by a stranger in a strange land. Dr. Jourdan was that so far as New York was concerned.

However, men of his kind make acquaintances and retain friendships with equal facility. The Phelans took to him from the first. Mrs. Phelan's motherly heart went out to him when she found that there wasn't a soul in the metropolis whom he knew.

The sergeant liked the plucky cheerfulness of the young man, and Larry's profession had taught him to pretty accurately estimate those with whom he came in contact. Like a majority of big men, his good-will took a practical form. It wasn't long before he began to send stray patients to his tenant; most of whom were on the "force" and didn't care for the ministrations of the department's doctors. Luck or skill or maybe the atmosphere of wholesomeness that surrounded the young M.D. caused these initial patients to swear by him professionally and in other ways.

Being benefited, they told their story to other sick ones. The practise grew slowly and steadily. Mrs. Phelan finally expressed her belief to her husband that the hoodoo had been scared from the first floor once and for all.

"You speak the truth, Mary," said Larry.

Now, a goodly number of Dr. Jourdan's patients came to his office to be treated, so that his outside practise was correspondingly small. The medical profession agrees, I believe, that where the sick folk are mainly men, they prefer to go to the doctor whenever possible instead of having the doctor come to them. By reason of the detective's introductions, it was his own sex to which the doctor chiefly administered. That is why he was within during many hours of the day when his shingle proclaimed him as being without. Dr. Jourdan usually spent these leisure hours poring over scientific medical journals, filled with all manner of literature that is but Greek to the layman.

"He is a learned man, is Dr. Jourdan," said the sergeant to his wife, "for the books he gets are in all kinds of languages, and he seems to read 'em just as easy as I do orders at headquarters. It must be fine to be able to get away with Italian, and Dutch, and several other kinds of speech at that. One of these days, when we get better acquainted, I'll mind me to ask him about his travels abroad that I know he's took. But he's the quiet boy, so he is. He never opens his mouth about himself and his doings. Maybe that is the reason I like him. Most men you meet are four-flushers that try to fill with a capital I."

Larry got the habit of dropping into the office during off hours, when he and the doctor talked over the events of the day, the happenings of the past, or the promises of the present. During these talks, Larry learned that his tenant came from a Western family, that he had spent some time studying in Germany and Italy, and that he had ideas of his own regarding certain phases of his profession. Larry couldn't understand it all, but it impressed him as being mighty clever.

"Well, sergeant, what has taken place to-day?" asked the doctor one November afternoon.

It was Larry's "relief." Both men had taken seats in the little room at the rear of the office which, in the residential days of the house, had been its conservatory, but now served as a den and smoking-room.

"Nothing at all. 'Twas one of the off days in the business," replied the detective. "Barring a shooting scrap at the Point and an incendiary in Spring Street, 'twas as quiet as fan-tan when the tongs are at peace."

"So?" There was a pause.

"Yep. Nothing doing. Young Halliwell was pinched again by a greenhorn dry-goods man, but that doesn't count."

"And who is young Halliwell?" asked the doctor, as he refilled his pipe.

For a moment Phelan looked at the other man in amazement. Then his face gave token of understanding.

"I forgot that you were a newcomer in these parts," he replied. "If you'd been

a New Yorker you wouldn't have asked that question. The kid and his queerness is as well known to people hereabouts as —as—Mulberry Street itself."

"Well, I'm hereabouts and I never heard of Halliwell before," declared the other with a laugh. "Tell me all about him."

The detective shot a quick glance at his companion as if to assure himself that he wasn't being jollied. Seeing nothing in the face of the doctor to suggest as much, he settled himself in his chair, took a long puff at his cigar, and began:

"If you'll read the society items of the newspapers, you'll get wise to the fact that the Halliwells are among the bigbugs of the swirl. Old man Halliwell, ever since the war, has had 'em coming his way—railroad properties, mines, real estate, investments—oh! a bunch of things that made money for him in heaps. Married one of the Marryats of Boston, and so busted into society. Then his son, George, hitched up to Miss Knollys of London—relatives of big nobs on the other side.

"That made 'em more solid than ever with the swell crowd at Newport and Bar Harbor and the Avenue. George also followed in papa's footsteps on the Street, and the family fortunes swelled in consequence. He had a son and a daughter. The daughter is engaged, so folk say, to some titled gent in France. The son, Harold, now twenty years old, is the chap who was arrested to-day."

"Why?"

"He is a nice lad, good-looking, pleasant manners, college-bred, and all the rest of it, but he's dippy on one subject. He steals things whenever he can get his hooks upon them," said the detective with professional sang-froid.

Dr. Jourdan laid down his pipe, and drew his chair closer to the other, while his eyes gleamed with interest. "Yes," he said. "Go on. A cleptomaniac."

"That's the word, doc. I've heard lots of people of your business use it when the party who did the pinching happened to have a bank account. Plain stealing in other cases." He laughed grimly.

"Go on, please." The young physician spoke commandingly rather than pleadingly.

"My! but this seems to have made a hit with you, doctor," Phelan answered banteringly. "Well, I need hardly say that the lad has been the cause of no end of trouble to his people. His way of borrowing what nobody lent him didn't break out until about four years ago, when he had just entered college.

"The matter was hushed up, but the faculty hinted to his people that it would be well to take him away and get a private tutor for him. This was done, but the crook end of him stuck out all the same. Whenever he could get his hooks on anything portable, there was something doing.

"Finally, his father's lawyers got busy with the dry-goods and jewelry stores—for it was these places that Harold chiefly fancied—and it was arranged that if he were caught with the goods on, the family was to make good and mum was to be the word. The newspapers were also silenced, so, too, was our department. It's only when a green cop or a new dry-goods Sherlock nabs the boy that he is hauled up as he was to-day. Of course, he's set free as soon as a motor-car can reach the station house."

"But haven't they tried to treat him—to cure him?"

"Doc, if we had one-twentieth of what his people have spent on specialists, sanatoriums, trips abroad, and medical stunts of all sorts and sizes, we'd own mansions on Easy Street! They have plenty of reasons for wanting to cure the lad. He's the only son, and his mother's health is very poor. His granddad and his dad, so they say, had built their hope on Harold continuing the business and passing it on to his son in turn. He doesn't seem to care to marry. Naturally, he is shut out of society, for his people don't like the idea of his partner at a dance or reception being shy a bracelet or a necklace when the band stops."

Dr. Jourdan was absently drumming his fingers on the table. Phelan continued:

"I've learned lately that they have decided to put him away—not in an asylum, you understand!—but some place where he can't get into trouble. Sorry I am, too, for, as I've said, he's as lovable a lad as you'd ever meet with."

"Then you've met him, have you?"

"Many's the time that I've done that," said Larry, as he smiled. "When I was on the Street I knew his dad and old man Halliwell as well as I know you. The boy used to be around the offices a good bit. He had his father's love for business. To see him sit there and talk, you'd never

believe he'd bats in his belfry. But they had to keep their eye on him every moment or he'd be swiping hats and umbrellas or pens or even ink-wells. More than once, on the days that Old Nick was especially strong in him, I took him home at the request of his dad. Like all of his kind, he had his good and his bad days, you know."

Dr. Jourdan nodded.

"Yes; recurrent periods are characteristics of the malady."

Phelan nodded.

"Are you still in touch with the Halliwells?" asked the doctor.

"Yes and no," was the answer. "Of course, they would remember me, but that's all. I've learned, doctor, that rich people ain't likely to bear you in mind unless they have use for you."

CHAPTER II.

Against the Lamp-Post.

THE voice of Mrs. Phelan was heard, summoning her husband to supper. The meal was served early because Larry had to report to his chief at six in the evening.

"Well, good day to you, doc," said the detective as he arose to go. "I'll have to bring you some of the coarse cut that the chief smokes, for your pipe has been going out all the afternoon. Sure, the fault must be with the tobacco."

As the door closed behind him, Dr. Jourdan thrust his hands in his pockets and strode up and down the den, his lips pursed as if he were about to whistle. This was his habit when his mind was focused on a subject of interest. Then he walked from the den to the office and into the front room.

Through the lace curtains he surveyed the crowd of people and vehicles that swept through the street. Matinée day and the fashionable theaters in the next street were responsible for the line of automobiles and carriages that lined the sidewalks in front of his office. Special policemen and the carriage-men of the theater kept the vehicles moving in a slow and steady fashion.

The performance was just over, and there was a flitting to and fro of pretty and charmingly garbed girls and their comfortable-looking chaperons. Flunkies, gorgeous in silk "smalls" and plush coats, were moving hither and yon in dignified haste. The undercurrent of outsiders and nobodies surged amid the main tide of fashion.

Right opposite the office, leaning against a lamp-post, was a young man who eyed the butterfly throng with the casual interest of the city dweller. He didn't look exactly "broke," yet it was easy to see by his dress and his linen that he wasn't rampantly prosperous.

What attracted the doctor's attention was the expression on the young man's face. He looked tired out—not physically tired, but mentally, as if hope had failed him and he had thankfully accepted the numb rest that failure brought.

"You're a lucky beggar, and you don't know it," said Dr. Jourdan as he looked. "Got to that stage when you are willing to watch the procession go by, and yet not want to get into it. Lucky beggar, I say! Those of us who are eating our hearts out because we see the parade and can't join it, would love to change places with you. No, I'll be hanged if I would. This waiting, waiting is bad enough, but it has a promise in it for all that. I'll wait until I see a break in the ranks that'll give me my chance—if I have to wait until—"

At that moment some one tapped the weary one on the shoulder. He turned, and his broad grin made it evident that the newcomer was welcome. There was an interchange of something green, and the pair strolled away in the direction of a café.

"If the helping hand doesn't turn up in my case, I'll make my own hands help me," quoth Dr. Jourdan smilingly. Then his chin seemed to take on additional aggressiveness. He had hopes which he intended to make realities.

A big man drove past, wearing a tan-cloth driving coat, a broad-brimmed felt hat. His light road-wagon was spick and span and the young horse hitched to it was one of blood and spirit. The doctor, who knew a good animal when he saw one, was admiring the set of its head, the play of the muscles beneath its satiny coat and its fine ears and nostrils, when an auto on the opposite side of the street tooted suddenly and noisily.

At the sound, the horse turned sharply in toward the pavement, locked the front wheel on a lamp-post, wrenched around, and, in a flash, upset the wagon, throwing

the driver heavily on the asphalt of the street.

As the animal reared, the doctor, without waiting for further developments, made for the street, shouting loudly to Phelan as he sped through the hall. The detective answered the call in the manner of a man accustomed to meet emergencies. Both were by the side of the victim of the accident before any of the other spectators had their wits about them.

The man was lying on his face with his arms stretched out in front of him. A little trickle of blood was beginning to steal from under his forehead. Assisted by the detective, the doctor turned the injured one over.

"My God!" cried Phelan, as he looked. "'Tis Colonel Nugent! Back, you hosenecks, and give air! Back, I say, or I'll—"

Thus he spoke to the curious crowd that had gathered.

"Some of you look after the horse and rig, and if any of you take as much as a hair from the blanket, I'll give you a free trip up the river!" Larry flashed his shield on the throng.

"He always hated autos, so he did, and now he's been killed by one of 'em," continued Larry to the doctor.

"Not quite that," said the doctor coolly, as he made a cursory examination of the wound, "but his condition is such that it would be well if he were removed to his home immediately. Where does he live?"

"Somewhere down on Long Island."

"That will never do. We must take him into the house, Phelan, until we know just how badly he is hurt."

At this moment, the officer on post put in an appearance. Phelan explained the situation. The colonel was carried into the house, placed in a spare room, and Dr. Jourdan made careful diagnosis of his hurt. He had a bad scalp wound, was suffering from shock, and there were possible internal injuries. Clearly he was in no condition to be removed until developments, one way or the other, manifested themselves.

So his friends were notified, and also his housekeeper—the colonel being a bachelor. Arrangements were made at the Phelan home for his stay there until such time as he could be safely taken elsewhere. Dr. Jourdan was installed as his attendant physician.

The Texas constitution of the patient vindicated itself. There were no complications and he recovered rapidly. He took a great fancy to the young doctor, and when convalescence began, the colonel declared that he found his surroundings so congenial that he really didn't want to be removed to Long Island unless his stay at the Phelans was inconveniencing those good people.

One day when the colonel was able to sit up and read the Wall Street editions of the afternoon papers, Dr. Jourdan made his usual call. The conversation drifted into personal channels. The bluff frankness of the mining man invited confidence. Almost before he knew it, the physician was telling the story of his professional hopes and ambitions, the majority of which were centered around a theory of his which he had subjected to partial tests.

"You see, colonel," he said, "there are a good many mental states—perhaps I had better call them maladies—that can be referred to causes of a purely physical nature. For instance, your liver is sluggish—to use a lay term—or, in other words, it fails to secrete to a sufficient quantity the liquids that play an important part in the process of digestion. Therefore, your food is not properly assimilated, the system becomes charged with toxic matter and you suffer from depression—the 'blues' in short.

"In extreme cases of this sort, there is a tendency to suicidal mania; in others, we have melancholia, gloomy forebodings, fear of the future, doubt of the present. The physical condition is reflected in mental and moral conditions. This is but one instance in point.

"The medical world is rapidly recognizing the principle in question. Advanced methods of treating the insane are, for the most part, to the end of inducing that normal bodily condition that is invariably associated with a normal mentality. Unhealthy body sheltering a healthy mind. I believe that nine-tenths of our criminals are the victims, not of kinks in their normal nature, but of some unrecognized maladies in their physical systems that, if eradicated, would make them useful citizens."

"Sounds good," said the colonel, "but it seems to me that there is a big 'if' tangled up in the proposition."

"You're right, and that is what I'm com-

ing to. Now, I need not tell you that the germ theory of disease is accepted by medical schools the world over. It follows that if my theories just stated are correct, mental maladies—so called—may be cured by the methods that are now used in the case of physical maladies."

"I don't quite get that 'so-called' end of the game," suggested the colonel.

"For the reason given you—that all diseases of brain or body can be referred to something wrong with the latter. So that there are no mental troubles, *per se*."

The colonel nodded understandingly, and the doctor continued:

"Now, nature has so ordered it that practically every disease breeds its own remedy. Thus, from the blood of a patient suffering from diphtheria we can obtain a serum that, injected into the veins of another person infected with the same disease will palliate or cure the latter.

"Ordinary vaccination is a further illustration of the great principle alluded to. The total trend of medical science is in the direction of this prevention or cure by means of inoculation. And there is no reason why mental or moral disorders of all kinds should not be treated in the like manner."

"This is certainly a new one," remarked the colonel, as he eyed the enthusiastic face of the young man with attention not unmixed with humor; "and if you put it through, a good many bug-houses will sure go out of business."

"Yes, and a whole lot of people now in business will also put the shutters up," added the doctor.

"Meaning what?"

"My dear colonel," said the medical man, "I know little about the Street in a practical way, but if public opinion regarding it is to be accepted, you have among you a colony—perhaps I had better say colonies—of those who are mentally afflicted. Their predatory instinct is abnormally developed—diseased, in fact. If they could be treated in the manner at which I have hinted, there would be a good many offices to let in the financial district, for a restoration to normality would include the promptings of common honesty. What stands good of the Street is equally true of the business world at large."

"May be as you say," admitted the other, "but I don't see how in thunder you are going to test your theories, or what good it would do to put them to the test."

"As to the latter," retorted the doctor, "I beg leave to differ with you. If it were possible to employ a remedy for dishonesty in exactly the same way as we do for any other disease, surely the world would be better for our so doing. The test of the theory will, in the first instance, have to be a matter of the consent on the part of an individual or of that individual's friends."

"I believe that you have such an individual in your mind's eye," declared the colonel, eying the doctor keenly. "You talk as if you had thought about the whole affair."

"You're right," replied Dr. Jourdan. "I don't see a ghost of a chance of making the test that I desire. The person and the person's people aren't likely to lend themselves to the experiment."

"And why?"

The doctor related the story of the Halliwell family skeleton as told him by Phelan, adding that it was hardly likely that the individuals mostly concerned would give ear to an obscure physician when famous specialists had failed to do aught for the boy.

"That depends on the credentials with which the 'obscure physician' approached the family," said the colonel somewhat bluffly. "But tell me how would you go about the business?"

Dr. Jourdan gave a rapid résumé of his ideas and plans. He would prepare a serum from the blood of some notorious thief—preferably one who had been repeatedly arrested for his "specialty." This serum he would inject into the tissues of the patient, having in mind his moral and physical condition. It would, of course, be necessary to see that the crook who furnished the vital fluid was in good health.

"You talk as if you were mighty familiar with this business," queried the colonel.

"I've been working on the theory since the day that I believed I knew something about medicine," said the doctor simply. "In Germany I was privileged to study under one of the most famous bacteriologists. In Italy, likewise. I took a course in London to the same end. In certain hospitals in the West, I experimented with what I believe was approximate success."

"Evidently you're no theorist," com-

mented the financier. "Tell me, is there no possibility of harm coming to the patient?"

"Provided that proper precautions are taken to insure the serum being prepared from the blood of an absolutely healthy person, there would not be the slightest chance that the patient would suffer from the experiment."

The colonel reflected. "I know George Halliwell quite well," he said at length. "We have been in two or three deals together, and things turned out exactly as I told him they would. He's got faith in my business advice, but I doubt if he'd accept my judgment when it came to an affair like this."

The doctor caught the note of half-promise in the speaker's voice. "Then, colonel," he said eagerly, "*you* believe in what I have told you, anyway."

"My boy," replied the mining man, "the party who has lived in the West and in Wall Street—and survived—can size up his fellow humans. I've sized you up and your lode runs true—that is as far as your beliefs are concerned. Whether you will pan out when it comes to washing, I can't say, not knowing enough of the medicine vein. But judging from what you've told me, I don't see why she shouldn't show color—and good color at that."

"Thank you, colonel." The doctor's tone was eloquent of his feelings.

"Now," went on the other, "I'll tell you what I'll do. I'll give you a note of introduction to Halliwell that will, anyhow, insure your getting a friendly reception from him. That which will follow will rest with you personally. Of course, you chaps who work for professional glory don't care a slag for the dollars, but if you should happen to make out all right with Harold, you'll have to buck-cinch your bank-account lest she bust herself."

CHAPTER III.

In the Halliwell Home.

IN the matter of the introductory letter the colonel was as good as his word. Having made a phone appointment with Mr. Halliwell, the doctor called on that gentleman one evening at his residence on Fifth Avenue.

The wealth of the Halliwells was made manifest by the appointments of the mansion, also by the gorgeously appareled butler who opened the door to the visitor.

The head of the house received the physician with the cordiality that the colonel had guaranteed, and plunged into the subject of the call without much parley. He was a small, lean man, with a keen, kindly eye, a white mustache, a thick crop of hair of the same hue, and a direct, incisive method of speech that went to the conversational core with a single thrust.

They talked for an hour or more; Mr. Halliwell shooting question after question at Dr. Jourdan, which showed that he pretty well understood the doctor's theories and the medical principles on which they were based. Nor was this to be wondered at, as the affliction of the son had been the chief concern of his life for several years.

"You are aware, of course, Dr. Jourdan," he said at length, "that I have consulted recognized authorities in regard to Harold and that these have failed to afford the desired relief."

"So I have been informed, Mr. Halliwell," replied the doctor.

"And yet you believe you will succeed where they have failed?"

There was a note of challenge in the query.

"I have faith in the teachings—the modern teachings—of medical science," replied the physician gently. "You must remember, sir, that I am not voicing my personal or unsupported beliefs. Progress in any science usually comes from quarters in which attainment is desirable, rather than from those where attainment has been achieved."

Mr. Halliwell looked at the other with renewed interest. "In other words," he said, "people with reputations are willing to draw dividends on those reputations instead of trying to increase their capital, doctor."

Dr. Jourdan signified his acquiescence by a gesture.

"Doctor, I am going to ask you a question to which I trust you will not take offense," said Mr. Halliwell, after a few moments of silence. "You can, I am sure, understand that where much is involved, as in this instance, a close scrutiny of men and motives is not only permissible but necessary." He paused for a reply.

"I understand perfectly. I shall be glad to answer any question."

"Nugent's letter, as you know, was

couched in terms that insured you this interview. If it had not been for that letter, I could hardly have received you in view of the many attempts that are made to waste my time on the score of my unfortunate son. Nevertheless, I am informed that your acquaintance with him is of a recent nature. How I was so informed does not matter for the present."

"Yes?"

"So that, he really knows little of you. He is given to intuition, so he claims," this with a smile, "and usually, his intuitions are to be relied on. In this instance, they are decidedly in your favor, but for all that, his personal knowledge of you is small—very small. Because of this, I am going to ask you: is your alleged desire to serve my son—and me—the outcome of your natural wish to obtain professional advertisement from so doing, or for the sake of the fee that will follow on my consent, or are you actuated by honest and honorable motives?"

Dr. Jourdan turned livid at the implication of the first part of the question. Instantly, however, his good sense asserted itself. His sympathetic nature put him in touch with Mr. Halliwell as an afflicted father and a rich man, hounded and harassed by charlatans who preyed on his parental affection for the sake of plunder.

He answered with a dignity that did not escape the observent ken of the other.

"I can give you documentary proofs, Mr. Halliwell, that the phase of my profession that I have had the privilege of discussing with you to-night, has engaged my attention almost from the time that I began my studies. I have been obsessed with the belief that medicine properly understood, will not only cure the human body but man's morality also, if the latter happens to be diseased. In time, this, its nobler function, will be made emphatically manifest.

"It was this belief that prompted me to seek an introduction to you, for I felt that if I could demonstrate the truth of my theories through the medium of so prominent a man as yourself, the good to humanity would be vast. It is the privilege of great wealth to set examples that may be followed with benefit by those less fortunately placed. As to any fee that might accrue, I pledge you my word of honor, that I never gave it the slightest consideration. Are you answered?"

The financier held out his hand, which the other took in silence. "Fully and satisfactorily answered," he said, "but I've been so badgered by cranks and quacks and self-seeking members of your profession that I find it necessary to be brutally frank—even where the credentials are of the Nugent order. Now—"

CHAPTER IV.

Enter Miss Mildred.

THERE was a tap at the library door, followed by its opening. There stood a girl, whose expression even more than her beauty made Dr. Jourdan stare in a way that was by no means in accord with good manners. She was tall, "imperially molded," as he told himself later, and held herself with a grace that was in entire accord with the keynote of her loveliness.

Her face was a perfect oval; her complexion that of old ivory; her eyes large, dark, and having a virginal directness that was delightfully embarrassing to any one she looked at; her mouth was small, the upper lip short and proudly tender, the nose straight and with finely curved nostrils.

But it was the soul behind the face that held one. There was the glory of high hope in the things that were to be; of the possibilities that life held for her and hers. No wonder that the doctor caught his breath and, unmindful of all else, looked and looked until his good breeding asserted itself and he very properly flushed for shame at his awkwardness.

"I beg pardon, father," said the girl, "but I thought you were alone. The carriage is outside."

Mr. Halliwell rose, as the doctor had already done. "This is Dr. Jourdan, Mildred," he said.

Miss Halliwell inclined her head slightly. Dr. Jourdan's bow in response had in it more of reverence than deference to social usage.

"Well, daughter," asked Mr. Halliwell, "and what can I do for you?"

"I did not know that you were engaged. Mother wishes me to remind you that it is nearly eight o'clock."

Her voice was low and velvety and it set the visitor to wishing that she would talk some more by reason of the delight that lay in listening to her.

The financier glanced at his watch. "Tell her that I'll be with her in a few moments, if you please," he said, rising.

The doctor rose also, and, being nearest the door, opened it for the young woman. She acknowledged the attention with another inclination of her head while her proud little mouth relaxed into the semblance of a smile.

The doctor did not resume his seat in spite of Mr. Halliwell's request that he do so. The girl had spoiled him for the evening. He felt that he was out of touch with his subject, that any further attempt to argue with the financier would prove futile, that he had temporarily lost his power of concentration on the questions involved in his professional beliefs.

While he felt angry with himself and Miss Halliwell that this was so, yet he was compelled to admit the fact that the experience bred within him an exhilaration to which he had been a stranger. Dr. Jourdan was not given to sentiment—neither his temperament nor his professional work being of a kind that made for its growth.

Yet in this instance, and in the space of a few minutes, it seemed to him that a flood of emotion had swept through the dam of reserve that he had tried to rear between him and the other sex. Even as he knew this to be so, he was conscious of the utter folly of permitting himself to even think of love in connection with a girl who was to exchange her wealth and beauty for a title.

"Since you insist, then," said Mr. Halliwell, "I will leave you. The truth is, we are going to the opera. I had forgotten the fact in the interest of our conversation. However, we will meet again very soon and have a further talk on the matter. Have you any engagements for Friday next?"

The doctor consulted his engagement book. "None that I cannot defer if you so desire," he replied.

Mr. Halliwell thought for a moment. "Suppose you dine with me at the Interstate Club, then, on Friday at 6.30 o'clock?"

The men parted.

Dr. Jourdan, as he journeyed down-town, was conscious of feelings that he did not attempt to analyze, but which he felt, nevtheless, were due, less to the professional possibilities that lay before him than to his meeting with the girl. Being a young man of sound sense, he did not allow himself to indulge in profitless dreamings. Instead, he accepted the inspiration that she had brought him and was content.

Nevertheless, this content did not permit of his thinking of her bartering herself for a title without protest. The psychology of the situation was involved. On the one hand, he felt that the girl was as near perfection as woman might hope to be; on the other, the idea that she was to marry "beneath" her—as he put it—did not lower her one whit in the ideal estimation in which he held her.

On his office desk he found a note from the colonel in which he expressed hope that the interview with Mr. Halliwell had been satisfactory. After reading it, he went upstairs to the convalescent's room and found the colonel sitting near a window, while the floor around was littered with evening newspapers.

"Hallo, doctor!" said the colonel, extending a welcoming hand. "How goes it? Take a chair; have a cigar! There's tarantula extract and a siphon on the sideboard."

Dr. Jourdan told in close detail of his meeting with the financier. The colonel, listening intently, slapped his knee enthusiastically at certain phases of the recital.

"You've got him, doc! You've got him sure!" he roared when the physician came to the end of his tale. "George Halliwell isn't the man to want to set eyes on you a second time unless he'd a mighty good reason for doing so! Stick to him and he's yours! Did you see Harold?"

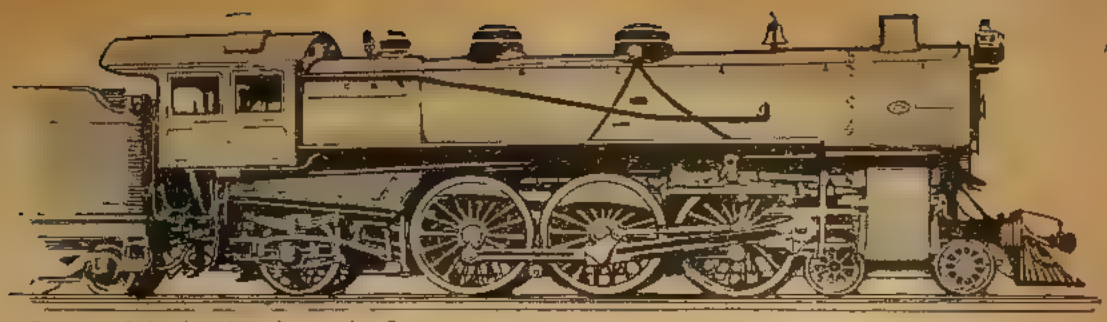
"No."

"Or any other members of the family?"

"Miss Halliwell was in the library for a few moments." Even as he spoke, a slow flush crept over the doctor's cheek, much to his annoyance. Luckily it escaped the notice of the colonel.

"Mildred is a pretty girl, and sensible in most things," said the colonel musingly, flicking the ashes from his cigar with the tip of his little finger. "More's the pity that she or her people are set on the fool idea of swapping their money and her good looks for a garlic-scented title. I guess that her mother, elegant woman though she is, is the one who's at the bottom of this brainless business."

(To be continued.)



Courtesy of the American Locomotive Company.

NEW PASSENGER ENGINE RECENTLY CONSTRUCTED FOR THE VANDALIA RAILROAD.

New Locomotives of Speed and Power.

BY JOHN WALTERS.

THE recent development in locomotive practise, recorded from time to time in the pages of THE RAILROAD MAN'S MAGAZINE, show a steady improvement in the building of the "iron horse" which must be evident to all railroad men who place this marvelous creation above all other inventions. It must also disparage those who constantly prate that the locomotive is doomed—that electricity has come to take its place. But this article deals with high speed in our locomotives, and, incidentally, with the new Mallet engines that are being turned out by the American Locomotive Company.

The Difference Between Locomotives that are Specially Constructed for Speed and Those Constructed to Pull Heavy Loads Up Heavy Grades.

KEEPING on the dot on a running schedule of 55.85 miles an hour, the fastest speed average now maintained in America, may sound easy to the ordinary individual who reads only of startling record runs made over particularly smooth and even stretches of track, but to men in the cab those figures tell a different story.

An engineer knows that to keep up an average of 55.85 miles an hour, including stops and slow downs, necessitated by stations, curves, and grades, means making occasionally a good deal better time than a mile a minute. It requires a locomotive that is as much ahead of the average hog as a Mallet outranks a switcher.

The standard 4 - 4 - 2 Atlantic and 4 - 6 - 2 Pacific types are recognized by American locomotive builders of to-day as combining the greatest essentials of speed, power, and reliability. For the fastest trains, the Atlantic type is a little more favored than the Pacific, though there are plenty of examples of the somewhat heavier 4-6-2 type in high-speed service.

Taking as representative of these two

designs, the Pacific type locomotive that makes our fastest speed average of 55.85 miles an hour and the Atlantic that comes second, on a run averaging 55.26 miles an hour, we find that the former has a somewhat greater total tractive effort and is used on slightly heavier grades than its rival.

Details of Construction.

Both designs require a boiler-pressure varying from 180 to 225 pounds per square inch, the boilers being exclusively of the fire-tube type and generally with a round top.

For steam distribution on high-speed locomotives, the Stephenson link-motion is largely used, but of late years there has been quite a tendency toward the Walschaert valve-gear. Recent reports from six large railroad systems of the United States show that the latter is more commonly found on the 4-6-2 type, while the former is extensively used on the Atlantic locomotives.

In the opinion of some superintendents of motive power, the Walschaert gear can be commended solely from the standpoint of easy inspection and maintenance, but not for superiority in steam distribution.

The argument is often advanced that as fast locomotives must be run at varying piston speeds, constant-lead valve-gears are not adapted to such service.

The shifting link gear, though having its faults, readily adapts itself to changing piston-speeds, and from the point of view of steam distribution is far more of a success. As recent statistics show that seventy-five per cent of the American high-speed engines are fitted with the Stephenson gear, it would seem that in this class of work it is not soon to be displaced.

Super-heated steam has not yet become common on our present-day speed-burners, while compounding is fast disappearing, there being a marked tendency toward the simple expansion engines in districts where fuel is cheap or when the added maintenance cost offsets the gain in compounding.

Fast trains in this country are ordinarily composed of from six to eight cars, and taking the average at seven, each with a loaded weight of 59.5 tons, the average weight behind the locomotive is 416.5 tons.

All of the 4-4-2 type have cylinders varying from 20 to 21 inches in diameter, while those of the 4-6-2 approximate 22 inches. For the 4-4-2, the piston stroke is 26 inches, and 28 inches for the 4-6-2.

The driving-wheels of the two designs vary from 78 to 80 inches in diameter, over the tire, and the weights (locomotive only) are from 180,000 to 190,000 pounds for the 4-4-2, and 262,000 to 266,000 pounds for the 4-6-2 type. The weight on the driving-wheels is from 81,200 pounds to 118,340 for the 4-4-2, and averages 190,000 pounds for the 4-6-2 type.

The Pacific type locomotive has a tender capacity of 1,300 gallons more than the Atlantic, and can handle a train over a third heavier than its rival.

A study of prevailing conditions makes it appear that further developments in high-speed locomotives are not to be looked for. By compounding, more power could be gained and better time, perhaps, made, but as compounding has not seen the same success in this country that it has in Europe, owing to our dislike for over-complicated mechanisms, it is not apt to be tried again. Moreover, railroad officials in this country have found that the ordinary express trains earn more money in proportion to their running expenses than the record-breaking limiteds, a feature that mitigates considerably against faster schedules.

Types of European Speed-Burners.

The high-speed locomotives of Europe are about equally divided between the compound and simple-expansion types. Of the compounds, the splendid work of the complicated De Glehn engines of France operated on runs requiring an average speed of sixty miles an hour, easily places it in the front rank of foreign locomotives.

England claims the longest no-stop run in the world. Engines on the Great Western Railroad from Paddington to Plymouth travel 226.5 miles without a single let-up. The Midland Railway follows with a non-stop run of 207 miles. On these British railroads as well as on the French lines, speeds as high as 80 miles are often made on regular runs. The usual arrangement of the locomotive attaining high speeds are the 4-4-0, 4-4-2, 4-6-0, and 4-6-2 types.

The two-cylinder type predominates in England, but few of these locomotives are used in Belgium, Germany, and France. The four-cylinder engines are not all com-

pounds, many of them being simple-expansion with two of the cylinders placed inside and two outside of the frames.

There are no instances of the cylinders being placed one over the other, or one behind the other, and acting on the same cross-head, as in the Vauclain or tandem types.

The average diameter of the driving-wheels of these foreign locomotives is found to be about 79 inches; practically the same as that of the driving-wheels used in America.

High boiler pressure is generally maintained, and the use of super-heaters in Europe is becoming popular, though the majority of roads still use wet steam.

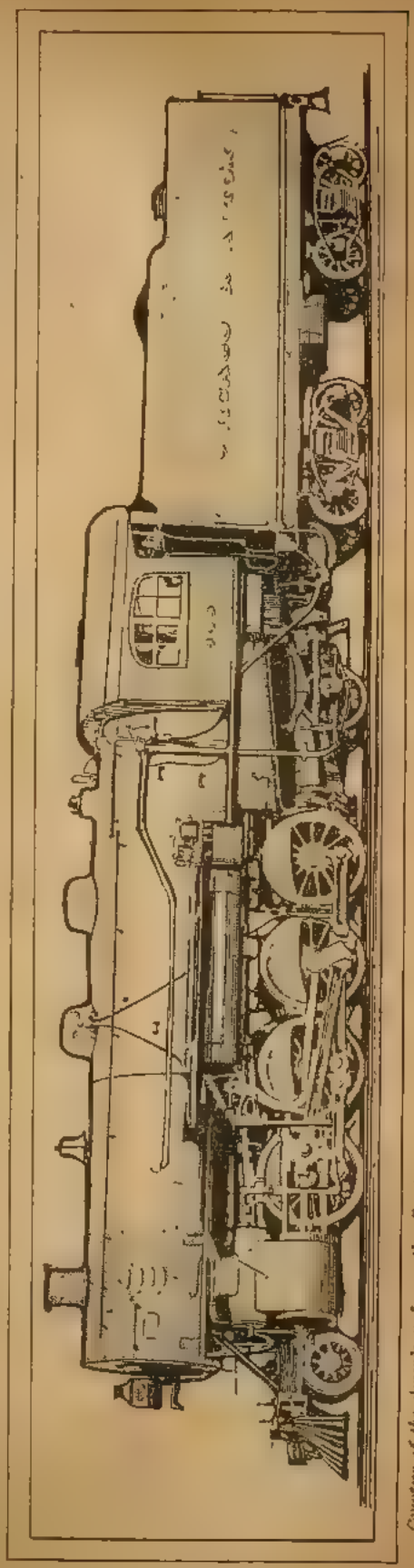
American Articulated Compound.

Turning for a moment to the new articulated compound, the following description from the bulletin (No. 1,006) published by the American Locomotive Company will show the difference between that company's locomotive—the American articulated compound—and the Mallet. The new American locomotive is an adaptation of the principle of the Mallet engine to American railroad conditions. The basic principle is the same in both, but the construction of the Mallet locomotive has been so modified in the American articulated compound engine to meet the requirements as to make it practically an original design.

The Mallet locomotive, I understand, was first built in small designs. Its introduction was due to the demand for a maximum power within the limit of light rails and narrow-gage track. The introduction of the articulated compound, on the other hand, was due to the necessity of providing locomotives of greater weight and power than could be obtained in existing types without exceeding the loading limits of the rail, and most of the examples of this type in America are locomotives of enormous weight and tractive power.

The only point in common which the American has with the Mallet is that it employs the articulated principle and compounds the steam In the system of compounding used in the American—the distinctive feature of which is the intercepting valve—is altogether different from that employed on the Mallet. The system of weight equalization differs in the two types of engines, as likewise the construction of the flexible steam-pipe joints.

"An articulated compound locomotive is one having two sets of cylinders, compounded together and driving independent groups of wheels," says the American Locomotive Com-



Courtesy of the American Locomotive Company.

NEW 2-8-2 LOCOMOTIVE BUILT FOR THE CHICAGO AND ALTON FOR HEAVY FREIGHT SERVICE.

pany's bulletin. "The two sets of cylinders are supplied with steam from a single boiler; it is practically two locomotives combined in one, and having one boiler. The rear group of wheels is carried in frames rigidly attached to the boiler in the usual manner; while the frames which carry the front group of wheels are not secured to the boiler, but support it by means of sliding bearings.

"There is a hinged connection between the frames of the front engine and those of the rear engine, about which the former is permitted a limited swing in relation to the latter. It will be seen that the front group is a truck which swivels radially about its articulated connection with the rear group, when the locomotive passes through a curve. It is from this feature that the articulated type of locomotive derives its name.

"Because of the fact that only the rear group of wheels is carried in rigid frames, the articulated type of locomotive provides a short rigid wheel-base capable of passing through curves of short radius. At the same time, the total number of wheels is greater than in the ordinary types of locomotives; and in weight is distributed over a greater number of axles.

"Consequently tractive power may be provided in this type without an excessive weight per wheel on the rail. In an articulated compound locomotive having twice as many driving-wheels as a given locomotive of the rigid-frame type, double the tractive power of the latter is available, with the same weight per driving-wheel on the rail and with no increase in the length of the rigid wheel-base. Or *vice versa*, with the same tractive power in each case, the weight per driving-wheel on the rail of the articulated compound locomotive may, by the use of the proper wheel arrangement, be released to one-half of that of a given locomotive of any of the types in ordinary use.

"The work being divided between two sets of pistons, crank-pins, rods, and driving axles, an enormous tractive power is obtained in the articulated compound locomotive with practically no increase in the weights of the moving parts over those of a locomotive of the rigid-frame type having half the tractive power; or, with the same tractive power in each case, the moving parts of the articulated locomotive may be made much lighter than those of locomotives of other types.

"In addition to the advantages due to its wheel arrangement, the articulated compound locomotive possesses all those resulting from compounding the steam. This type of compound locomotive is what is known as a two-stage compound; that is, the steam is used successively in two sets of cylinders. Steam from the boiler is admitted to the first set or high-pressure cylinders, which ordinarily drive the rear group of wheels; and, having done work in those cylinders, is then used over again in the second set or low-pressure cylinders, which are connected to the front group of wheels. From the low-pressure cylinders, the steam is exhausted to the atmosphere.

"Between the high and low pressure cylinders and connecting the two is a large pipe called the receiver, into which the steam from the high-pressure cylinders exhausts when the locomotive is working compound. The receiver is simply a reservoir in which the exhaust steam from the high-pressure cylinders is stored until it is required by the low-pressure cylinders. From the receiver, the steam is admitted into the low-pressure cylinders by their valves in the usual manner.

"The low-pressure cylinders have a larger piston area than the high-pressure cylinders, the ratios between the two being such that, at the ordinary working cut-off, the steam at the lower pressure per square inch acting against the larger piston area exerts the same force as the higher pressure steam acting on the smaller area. Consequently, the high and low pressure cylinders, having the same stroke, each set of cylinders ordinarily does practically the same amount of work.

Six or Seven Expansions.

"By using the steam successively in two sets of cylinders, a greater range of expansion is obtained than in a simple or single expansion locomotive. In other words, the difference between the pressure of the steam entering the high-pressure cylinders and the pressure it has when the exhaust from the low-pressure cylinders opens, is greater than in the case of a simple locomotive.

"In a simple locomotive, the steam is ordinarily expanded only four times, while in a two-stage compound six or seven expansions are obtained. As a result, more work is performed by the same amount of

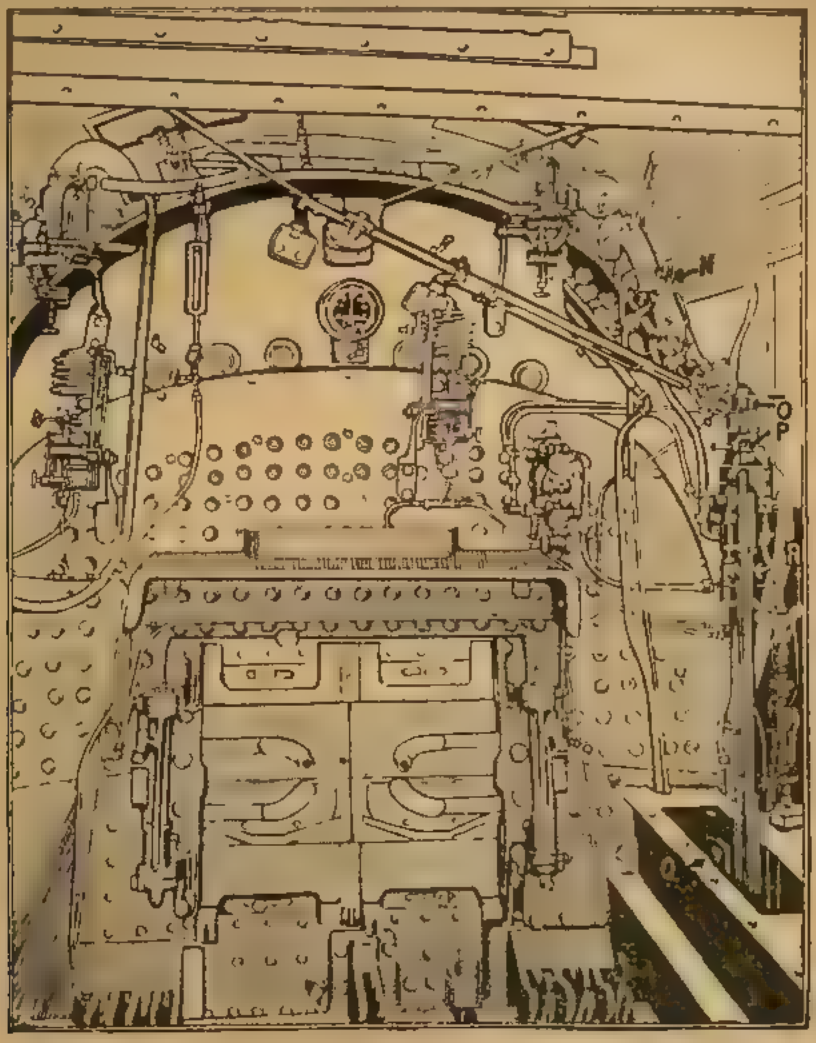
steam in a compound than in a simple locomotive, and a considerable saving in coal and water consumption is thereby effected

"Moreover, compounding divides the range of temperature between the two sets of cylinders, so that the condensation in the cylinders is reduced, which effects a further saving in fuel and water consumption

"In every compound locomotive, some provision must be made for admitting steam direct from the boiler to the low-pressure cylinders in starting and until the exhaust from the high-pressure cylinders supplies the low-pressure cylinders with steam Also, provision is usually made by which, in cases of emergency when additional hauling capacity is required, the locomotive may be changed from working compound into simple with an increase in power.

"In the American articulated compound locomotive these functions are performed by a special mechanism called the intercepting valve which is located between the receiver and the exhaust passages from the high-pressure cylinders

"Another device used by other locomotive builders in place of the intercepting valve employed by the American Locomotive Company is an arrangement by which, on opening a valve operated from the cab,



Courtesy of the American Locomotive Company

INTERIOR VIEW OF THE CAB OF THE AMERICAN ARTICULATED COMPOUND LOCOMOTIVE.

N. Emergency Operating Valve. P. Engineer's Automatic Brake Valve.
O. Engineer's Straight Air Brake Valve. Q. Main Reverse Lever
R. Auxiliary Reverse Lever.

communication is established between the two ends of the high-pressure cylinder through a by-pass pipe, and live steam reduced in pressure by passing through this pipe is admitted to the receiver and so to the low-pressure cylinders.

"With the by-pass arrangement, when the locomotive is working simple live steam is necessarily admitted to both sides of the high-pressure pistons. Consequently, these pistons are very nearly balanced. At the same time, the live steam which is admitted to the low-pressure cylinders is reduced in pressure. The result is that, under these conditions when the locomotive is starting or working simple, all of the work is done by the low-pressure cylinders, and little increase in power is secured.

"In the American Locomotive Company's system of compounding, the intercepting valve is so designed that when the engine is working simple the exhaust from the high-pressure cylinder passes directly to the atmosphere and the valve cuts off communication between the receiver and the exhaust side of the high-pressure pistons, thus relieving them of back pressure, except that of the steam exhausting.

"Moreover, the live steam from the boiler, reduced to a pressure of somewhat above the ordinary pressure in the receiver, is admitted to the low-pressure cylinder. Hence, the low-pressure pistons are exerting more power than when working compound. This additional power added to that secured in the high-pressure cylinders gives a total increase in power when working simple of about 20 per cent.

"The intercepting valve also automatically regulates the pressure of the live steam entering the receiver when starting and when working simple, keeping it at such a pressure that each of the four cylinders does practically the same amount of work."

RAILROADS TO FIGHT BOLL-WEEVIL.

PRACTICAL steps are being taken by the Southern, the Alabama Great Southern, and the Mobile and Ohio roads to cooperate with the officials of the United States Agricultural Department and the State commissioners of agriculture in advising farmers, in the territory along the lines of these railways, which may eventually be reached by the Mexican cotton boll-weevil, as to the best methods of growing cotton in spite of the presence of that insect.

The experience of the farmers in Texas demonstrates that, by the adoption of proper methods, practically as large yields of cotton can be obtained as before the appearance of the weevil. In most localities in Texas the invasion of the weevil has generally been followed by short crops for two or three years, until the farmers have learned how to deal with the insect.

For the purpose of making the cooperative work of the companies as effective as possible, an organization has been perfected to be known as the Cotton Culture department of the railroads mentioned, with a view to encouraging the adoption of the most improved methods in advance of the appearance of the weevil. This, it is believed, will have the effect of maintaining the normal production of cotton.

Practical farmers who have had experience in dealing with the boll-weevil will be employed, and will devote their entire time to visiting the farmers along the lines of these railways in localities which may eventually be reached by the weevil, and giving them practical advice as to the best methods of growing cotton under boll-weevil conditions.

Planters and others in these localities who are desirous of availing themselves of the practical advice and assistance of the agents of the department in this matter, are invited to correspond with T. O. Plunkett, general agent, at Chattanooga, Tennessee.—*Railway and Engineering Review.*

TESTS FOR LOOSE WHEELS.

AN accident due to a loose wheel on the London, Brighton and South Coast Railway was recently investigated by the railway department of the Board of Trade, Colonel von Donop, presiding.

It appears that the only records of similar accidents were on the Great Western, and in the report of the L., B. and S. C. accident, the precautions now taken by the Great Western Railway are referred to by way of giving an example of what very high-grade shop practise really is.

The Great Western people, after pressing a wheel on the axle, make a practise of applying a back test pressure of fifty tons on all wheels fitted up in the shops.

They also have a tape record of the pressure during the process, which makes an automatic record, and thus any variation or fluctuation in the constant pressure applied is discernible.

The fifty-ton back pressure is applied to see if the wheel can be started after finally home on its seat. The London, Brighton and South Coast Railway have adopted the back pressure test for wheels since the accident.—*Exchange.*

NOT ON THE BOOKS.

BY HARRY PENCE.

The Mystery of a Money-Order for $28.75 Is Solved After Many Years.

THE garrulous man in the corner of the smoking compartment kept up his incessant, uninteresting chatter. The porter was making up the berths. Whenever his swarthy head appeared at the entrance and nodded to one of the unwilling listeners that man promptly retired. Thus the audience dwindled to but one man, who remained so stubbornly silent and heedless of all remarks directed at him that conversation soon waned.

The conductor entered. Taking a seat he began to arrange his tickets. It was a heavy run, and this was his only opportunity to get a line on his cargo.

The talking-machine watched him a moment, evidently somewhat impressed with the dexterity with which he handled the pasteboards, and then blurted out:

"Been with the road long?"

"Twenty-two years," replied the conductor.

"Ever been in a wreck?"

The conductor, pausing in his count, made a pencil notation on a slip of paper.

"Yes, several," he responded pleasantly, for he was a patient man. Then he resumed his task.

"Ever been hurt?"

Intent upon his work, the conductor pretended not to hear, but the relief was only temporary.

"Keeping tab on the company's business, eh?" persisted the torment after a moment of silence.

"Yes, to some extent."

"Got things pretty well systematized, I see. They don't give you a chance to get away with anything."

As this did not seem to demand an answer, none was given.

"It was different in the old days, wasn't it?"

"Yes, very much."

"Yes, I know a man who was a conductor about twenty years ago. He has not done any work for ten years, and seems to be very well fixed. He says that in his day it was easy to make double salary, and that the company didn't kick if the men didn't dig any deeper than that. Is that a fact?"

The conductor had finished, but had no inclination to continue the discussion.

"I don't know, sir," he said, as he rose. "In all my experience I never turned in but one false report. That one was enough for me."

He left immediately and did not return until he had made the round of the train. The voluble passenger was then peacefully snoring in his berth, but the silent man remained, quietly smoking.

"Have you a few minutes leisure?" he asked, as the conductor entered.

"Yes, sir."

"Well, take a seat and a cigar, and bear with me as patiently as you can."

The conductor accepted and made himself comfortable.

"I couldn't help hearing what that idiot had to say to you, which didn't amount to much, except that it was tiresome, but your remark when you left interested me very much. Would you mind telling me about it?"

"What do you mean? The short report?"

"Yes."

"Oh, that was a long time ago. I'd rather forget it."

"That's all right. Pardon me. You know, I don't mean to be impudent."

The conductor gazed thoughtfully out into the darkness.

"You know," he said at length, "it was an odd impulse that prompted the remark in the first place. I wondered at it and was thinking about it when you asked me. I don't object to telling you, though I don't know if it will interest you very much. It was on the old C. and G."

"You don't say so? In Tom Byrne's time?"

"Yes, he was the big chief then. Did you know him?"

"Not so well as I did later, though I was with him a great deal during the old C. and G. days."

"Well, in that case, you know one of the biggest and best men who ever lived and—"

"Yes, I come to feel that more and more, now that he's gone."

"That was what I was trying to say. I don't believe there was a detail of the road's affairs that he did not look into personally and get to the very core. I remember once, after switching in the yards a few months, I got a freight run. Twisting brakes was no snap in the days before they put on air.

"I was a mere kid in the service. Byrne had some business up the road, and as there was no passenger out at night, he took our train. He was in the caboose when I came in, and as soon as I got within range of the one dingy hanging-lamp in the car he said, 'Hallo, Sparks, how do you like your new run?'

"I thought, of course, that the conductor had told him he had a green hand aboard, but later he said he hadn't. It was just Byrne's way."

"Your name is Sparks?"

"Yes. Why?"

"Oh, nothing. I remember some of the old C. and G. men, and a mention of Byrne calls up so many memories it takes some time to straighten them all out."

"Yes, thinking about him makes me lose track of my story. Before long I was transferred to No. 17. That was a combination passenger and freight that ran to Mellworth every morning and back at night. It carried five or six cars, a combination baggage and smoker, and one dingy coach, but it did a good business, for it stopped everywhere. I have seen it fill and empty itself three times on the trip.

"It was a most accommodating accommodation. I remember one family that lived half way between stations. Some member of it was going to town or coming out nearly every day, and we stopped every time we saw a handkerchief or white rag hanging on the gate-post.

"By and by we saved them a great deal of trouble by letting them change the signal, so that they hung it out only as a warning for us not to stop. Maybe you think I'm joking, but it's a fact. On such a run, of course, a good part of the fares and freight charges were paid in cash.

"No. 18 was the same kind of a train, only it arrived in the morning and went out in the afternoon. We passed it at Rutler on both trips. Gresham was conductor of No. 17, and Thompson had charge of No. 18, while Joe Brown sometimes substituted for both of them.

"Joe's brother, Fred, 'braked' for Thompson, and I was with Gresham, but as all of the men lived in town, we switched about a good deal to give the 18's crew a chance to spend more time at home.

"Gresham and Thompson were both old-timers, and stood so well with the main office that I used to wonder why younger fellows were passed right along to some of the best runs on the road, but none of our crew ever complained.

"Well, one day Gresham was sick, and they sent for Joe Brown. Fred appeared

in his stead, and explained that he had induced Joe to work for him for a couple of days. He seemed to take it for granted that he would be just the man to fill the place, and, with an air of importance, went to the telephone.

"I heard him call the main office and could tell that Byrne was at the other end. He explained the situation glibly, when it was evident that he was interrupted by the sudden manner in which he called me to the phone. Byrne was brief and to the point.

"'Sparks,' he said, 'you take out that train and bring it back, and if you put it through all right I'll try to give you a regular one before long.'

"I felt sorry for Fred. His countenance dropped when I told him, but there was no help for it. At the depot, a messenger brought me the old leather pocketbook, full of slips, which Gresham took out every morning and turned in every night. Fred eyed me enviously as I tucked it away.

"At the first stop we took on an old friend of Gresham, who had made the trip a hundred times. I had noticed that on former occasions he always handed Gresham a coin and got back change. He was reading a paper when I came through, and, without looking up, he handed me a half-dollar.

"'It's fifty-five cents to Ware's Station,' I said, holding out my hand for another nickel.

"He looked up in a kind of daze, but seeing a strange face under the cap, muttered something and hurriedly produced the money. Later, I saw Fred stop and talk to him. He looked at me and nodded his head wisely.

"Fred seemed eager to help—more so than I had ever seen him. He was the first man off at every station, and willingly helped in handling and checking up the lighter freight. As I was new to the work and got confused at times, I was thankful for his help, and thought I had made a mistake when I counted eleven barrels rolled off at Rislings when his report and return in cash was for eight.

"He greeted every passenger, especially the regulars, and once, as one of them was climbing up the platform steps, he leaned over and whispered something. The man hesitated, and then turned around and dropped off just as the train started.

"These things impressed me as slightly queer, but the real surprise awaited me at Rutler. Thompson's jaw dropped when he saw me in charge. He called Joe Brown, and after a hurried consultation they walked over to me with the evident intention of being very friendly. Thompson announced that he would take Fred back with him, and that Joe would go along and help me out.

"Now this somewhat reversed things, for I had often made the trip with Joe in charge, but he was graciousness itself and did not seem to resent being for the time subordinate to a youngster. He soon tipped his hand, however, when, slapping me on the back, he said, 'Well, old man, you'd better let me take the book. I'll look out for it and you can sign the report.'

"'No,' I said. 'Byrne told me to take it out and bring it back, and I'm here to obey orders.'

"'Oh, all right,' he replied snappishly, 'I only wanted to help.'

"I felt mean about this, but did not see how I could do anything else. We didn't refer to the matter again till we unloaded and pulled onto the siding at Mellworth.

"Then he insisted that I go over to Hogarty's for a glass of beer. I laid the book on the table as we sat down. He took it up and looked it all over carefully. Then he sized me up for a full minute.

"'Now, see here, George,' he said. 'There's no use beating about the bush. You simply can't let this go in this way. It would be a dead give-away for all of us. You ought to know that Gresham and Thompson have been making a good thing out of this run for a long time. When I first subbed for them, I got wise and dropped into line.

"'You don't want to hurt them, but if you turn in this report, it's discharge for them and for me, too. They're pretty popular fellows, and have friends that'll make it hot for you if anything happens.'

"I told him I didn't see how I could help, but he kept on arguing and threatening until I left him to get my dinner. About half past twelve I saw him enter the local telegraph office, and knew, of course, that it was to get word to Thompson, who would soon pass it on to his friend Gresham.

"That trip back was a torture. I kept the strictest tab on everything, while Brown sulked and pouted. On the platform at Rutler, he and Thompson came to me.

They kept me busy during the whole stop, arguing over the matter; Brown angry and vehement, Thompson calm, persuasive, but no less earnest.

"'Well, what about it?' they demanded, after eight minutes wrangling.

"I shook my head.

"'Boys,' I said, 'I am sorry, but I didn't start this game and I won't have anything to do with it. I'm sorry, but I can't help you.'

"With that I left them. Muttering bitterly under his breath, Brown followed me to the train. I got a peep at Thompson as we pulled out, but from the expression of his face you could not have guessed that anything unusual was in the air. After his first surprise in the morning, he seemed prepared for anything, and never lost his temper.

"As soon as we got under way, desiring to be alone, I went into the baggage-car. Then it was my turn to be surprised. Propped up in a chair, pale and agitated, was Gresham. Sick as he was, Thompson had got him out and brought him up on 18. He was a pitiable object.

"He recognized me and tried to smile. It made my heart ache to see him.

"'George,' he said, and his voice was weak and husky, 'haven't I always treated you right?'

"I certainly had to admit that he had, for he was a considerate man to work under, and I always liked him.

"'Well, George,' he went on as soon as he had strength, 'you have it in your power to ruin me. I am sick—really sick—and though I can't deny that I have made pretty free with the company's money, it has done me very little good.

"'There is very little of it left, and more than once I have regretted that I ever fell into the habit. Now, if you'll stand by us this time, I'll see that Thompson and I let up. You'll be doing a favor to the company as well as us.'

"Well, I hate to go over it all. I wouldn't give in so long as they had threatened and blustered, but when this sick man, whom I had known and liked for years, sat there begging me not to ruin him—well, I couldn't stand the combination. I weakened and called Brown.

"We made out a new trip-sheet representing about one-half of the actual cash business. I signed this and turned it in. Then I went up to Byrne's office and asked him to put Brown on the run.

"'Why, don't you like the work?' he asked.

"I told him I did, but that the responsibility was heavy, and I was afraid of losing my head and getting things badly mixed.

"He smiled rather strangely and said he would humor me. I never understood why, a month later, he gave me one of the best runs on the road."

"Maybe I can tell you," replied the passenger, whose interest had increased as the narrative progressed. "What did you do with the rake-off?"

"Oh, why—that doesn't matter."

"How much was it?"

"Twenty-eight dollars and seventy-five cents."

"Well, maybe I can tell you what became of it."

It was the conductor's turn to be curious.

"Yes. I was Byrne's secretary at the time. He knew Gresham and Thompson were holding out, but said that their successors would do the same. As they were good trainmen, he let them stay. He said it was the fault of the system, so, gradually, he changed the system.

"I don't remember your report, but I do remember a money-order for twenty-eight dollars and seventy-five cents purporting to have been sent by one Wesley James, for freight charges of which we could find no record.

"The old man puzzled over it for several hours. A few days later he said to me: 'Well, I've found out about it. Sparks is a good fellow and didn't want to give his friends away, so he made his report in instalments. Put him on the preferred list for promotion.'"

You may think you earn more than the boss, but it's the boss you'll have to convince of it—then he'll fire you. Work—and quit fooling yourself.—The Bridge Builders' Bulletins.

The Sunny Side of the Track.

If You Think the Railroad Is Shrouded in the Seriousness of Hard Work, Look at These Rifts Where the Sun of Humor Shines Through.

THAT WAS BEFORE.

"WHEN we were first married he kissed me every time the train went through a tunnel."

"Doesn't he do it now?"

"No, he takes a drink."—*The Arkansas Traveler.*

HIS REASON.

"I WANT a pass."

"Pass? You're not entitled to a pass. You are not an employee. Sorry."

"No, but here the anti-pass law says free transportation can be granted to 'necessary caretakers of live stock, poultry, and fruit.' Well, I'm going on this trip with an aunt that's a hen—there's your poultry; a girl that's a peach—there's your fruit; and a nephew that's a mule—there's your live stock. Gimme a pass."—*Erie Employee's Magazine.*

HIS BURST OF GENEROSITY.

IN one of the through trunk lines, a Pullman sleeper on a west-bound train was very crowded, and preparations for the night were in progress. Puffing and blowing, the fat passenger began to climb to the upper berth in the sleeping-car.

"Pretty hard work, isn't it?" said the man in the lower berth.

"It is," answered the fat passenger, "for a man of my weight."

"How much do you weigh, may I ask?"

"Three hundred and eighty-seven pounds"

"Hold on. Take this berth," exclaimed the other, his hair beginning to stand on end. "Do you know I'd rather sleep in the upper berth, anyway. I believe the ventilation is better."—*Exchange.*

HE HADN'T TIME.

A PARTY of surveyors were surveying along the road that ran past Farmer Brown's farm. Brown came out and watched them attentively for some time without speaking. At length his curiosity got the best of him and he asked: "What might you being surveying for?"

"A railroad," answered the engineer.

"That so; and which direction is it goin' to run?"

The engineer, thinking to have a little fun with the old fellow by getting him into an argument, pointed at his barn and answered:

"Right through the middle of that barn."

The old fellow jumped up excitedly and exclaimed:

"Well, I be gol darned if I'm goin' to stand here and open that barn-door every time the train goes through."—*Exchange.*

A CHIP OFF THE OLD BLOCK.

SHE: "Did you know Jimpson's daughter—Jimpson, who used to be an engineer on the Santa Fe? Yes? Well, she was presented at court last month over in England, and they say she acquitted herself nobly, handled her train well, and all that."

He: "Well, why not? It's inherited. Why shouldn't she handle her train well? Her dad was one of the best engineers on the road."—*Exchange.*

BADLY MIXED.

SOME passengers were waiting at a way station in Vermont for the train to Burlington.

"What kind of a train is this?" asked one of them of the busy station-master.

"Oh, freight and passenger together."

"Mixed, eh?"

"Worse than that," said the station-master. "It's what you might call scrambled."—*Northwestern Bulletin.*

WESTERN COURTESY.

THE two men who had been sitting near the door of the car became engaged in an animated controversy, and their loud voices attracted the attention of all the other passengers. Suddenly one of them rose up and said:

"Ladies and gentlemen, I appeal to you to

decide a disputed point. My friend here insists that not more than three persons out of five believe they have souls. I take a more cheerful view of humanity than that. Will all of you who believe you have souls, raise your right hands?"

Every right hand in the car went up

"Thank you," he said, with a smile. "Keep them up just a moment. Now, all of you who believe in a hereafter please raise your left hand also?"

Every left hand in the car went up.

"Thank you again," he said. "Now, while all of you have your hands raised," he continued, drawing a pair of revolvers and leveling them, "my friend here will go down the aisle and relieve you of whatever valuables you may happen to have."—*Express Gazette.*

HE HAD HIS DAMAGES.

IN a trolley accident in New England, an Irishman was badly hurt. The next day a lawyer called on him and asked him if he intended to sue the company for damages

"Damages?" said Pat, looking feebly over his bandages.

"Sure, I have thim already. I'd loike to sue the railway for repairs, sor, av ye'll take the case."—*Santa Fe Employees' Magazine.*

IT AFFECTED HIS NERVES.

A RATHER seedy-looking man hurried excitedly from the rear coach into the smoking compartment of the Pullman

"Has any one got any whisky?" he shrilly inquired. "A lady back there has fainted."

Half a dozen flasks were offered instantly. Seizing one, he looked at it critically, uncorked it, put it to his lips and took a long, lingering pull.

"Ah!" he exclaimed, with gusto, "I feel better now. Seeing a woman faint always did upset me."—*Exchange*

TIT FOR TAT.

RAILWAY official: "Smoking's not allowed in this room, sir. You'll have to go."

Mr. McFinigan: "I'm not shmokin', sir

Railway official: "But you have your pipe in your mouth, sir."

Mr. McFinigan: "Yis; an' I have me fut in me boot, but I'm not walkin'."—*Exchange*

WHY HE ASKED.

THEY were on their wedding-tour, and imagined that every civility given them related to their new condition of servitude.

Having stopped off at a way-station, the bridegroom was approached by the station-agent, who asked:

"Are you going to take the next train?"

"It's none of your business," retorted the bridegroom, indignantly, as he guided the bride up the platform where they condoled with each other over the impertinence of some of the natives.

Onward came the train, its vapor curling from afar. It was the last to their destination that day—an express. Nearer and nearer it came at full speed, then in a moment it whizzed past and was gone

"Why in thunder didn't that train stop?" yelled the bridegroom.

"Cos you said 'twarn't none of my bizness. I has to signal if that train's to stop."—*Exchange.*

ONCE WAS ENOUGH.

"HOW often does your road kill a man?" asked a facetious traveling salesman of a Central Branch conductor the other day

"Just once," replied the conductor sourly.—*Kansas City Journal*

TWO WOMEN.

JUST as the fast train was leaving Minneapolis for the East, two women, one of them bearing a small parcel, dashed madly toward the gates.

"Is that the Chicago train?" they cried.

"It is"

"Stop it! Oh, stop it!" begged the women. "Oh, it must be stopped!"

A crowd of university boys was at the station waiting for the football team to arrive. Gallantly they took up the cry and it turned into a yell, "Stop the train! Stop the train! Stop the train!"

The conductor came out on the observation-platform; the station was in an uproar, and the two women were running toward the train

The conductor seized the bell-rope and yanked it. The train stopped and began to back in, slowly, while a woman appeared on the observation-platform.

The two women rushed to the car. One of them handed up a box of candy to the passenger She leaned down and kissed both the other women good-by.

"Now," said the late-comers, "the train can go. Good-by, dearie."—*Chicago American.*

SEVERELY PROPER.

A BOSTON girl the other day said to a Southern friend who was visiting her, as two men rose in a car to give them seats, "Oh, I wish they would not do it!"

"Why not? I think it is very nice of them," said her friend, settling herself comfortably.

"Yes, but one cannot thank them, you know, and it is so awkward."

"Can't thank them! Why not?"

"Why, you would not speak to a strange man, would you?" said the Boston maiden, to the astonishment of her Southern friend.—*Exchange.*

Famous Freak Railroads.

BY JACK SILVERTON.

THAT peculiar trait of humanity which prompts one to do something out of the ordinary lies at the bottom of most of the improvements that have been made in the material things of life. At the same time, it is responsible for many queer and freakish inventions—some of which have been so ludicrous as to make one marvel that a dollar could be raised to exploit them. As a rule, the more important an invention or device, the more it is made a target for cranks. The railroad furnishes a number of illustrations of this statement. No other creation, perhaps, has been beset with so many queer and unworkable ideas.

Queer Railroad Conceptions that Baffled Common Sense and Dissipated Fortunes, and Others that Worked Smoothly and Made Money for Their Owners.

THE German government, in 1907, purchased of a New York professor, Albert C. Albertson, the world patents of a "magneto-railway." Professor Albertson was also required to give bonds that he would not invent, or attempt to invent, anything that infringed on the main principle of the railway. This principle was a curious one. The track is somewhat elevated. From the coaches and motor, arms of wood and metal descend and curve under the rails. The lower parts of these arms are faced with electromagnets that turn upward toward the under sides of the rails.

These magnets can be charged either from a small dynamo carried on the train, or from the driving current itself, if an electro-motor is used. Now, when the magnets are in action, they naturally pull upward to the rails, at the same time lifting the cars with them. By regulating the pull of the magnets in accordance with the load carried, the weight of the cars can be reduced to a minimum.

This means that there is a nominal wear and tear on the right-of-way; that the horse-power of the locomotive or motor can be greatly reduced; that the speed can be increased. It is said that the Germans intend using the device for conveying ammunition and supplies to the front in case of war.

Some years ago a genius in South Dakota gave to a wondering world what he called the gravity-flume railroad. Here, again, it was a case of a prophet, or, rather, an inventor, not having honor in his own country. The inventor, after trying to interest his countrymen, went to England, where he managed to get a working model built. After that, there is silence.

The gravity-flume line was built on a series of pillars that were moved up and down by steam power. As they so moved, they elevated or depressed the track, in accordance with the position of the train.

The main idea of the device was to always have the track behind the cars rising upward by means of the pillars, so that the former were sent forward by gravity, inasmuch as they were perpetually running down-hill.

After the cars had passed a given point the track, by an operation of the pillars,

became motionless again until the coming of the next train. The pillar mostly concerned for the moment was set in motion by a device actuated by the train itself.

But this was by no means all. The track was flume-shaped, and made of sheet-iron so riveted that it was flexible to a certain degree.

The cars were without wheels, and had flat bottoms that fitted into the flume. A shallow current of water ran through the flume at irregular intervals, on which the cars "floated." Given the water and the moving pillars, the cars shot ahead smoothly and swiftly—in theory, at least. But, alas! after the building of the model, nothing more seems to have been heard of the invention.

A freak railroad of a totally different type is owned by Perceval Heywood, a wealthy Englishman. The line runs through his estate at Duffield Hall, South Derbyshire. It is about a mile long, and includes every kind of difficulty or problem that a railroad engineer is called upon to face. Such difficulties are, of course, made to order, and they are in miniature also; but they are none the less faithful to the facts for all that.

There are curves in plenty, embankments, cuttings, bridges, a viaduct twenty-five feet in height, a tunnel hewn out of the solid rock, points, crossings, clear stretches, and many tiny stations. The gage of the road is fifteen inches. Mr. Heywood runs the road for fun.

Lilliputian Roads.

There is a real carrying line in East Frisia, Germany, which is five miles long, two and a half feet in breadth, and has a weekly pay-roll of about $22.50. The rolling-stock consists of two engines, three coaches, four trucks, and two vans. The staff, all told, is made up of one driver, one fireman, one guard, and one plate-layer. The engines weigh seven tons each. Seven cents is the fare for a ride from one end of the road to the other. There is passenger and produce traffic, and the financial condition of the line is said to be satisfactory.

Still another Lilliputian railroad is the terraced line that runs between Bala and Festiniog, Wales. It has a gage of one foot eleven and one-half inches, covers about two miles, and does a paying passenger business.

The railroad that exists within the boundaries of Woolwich Arsenal, England, furnishes a curious example of the conservative nature of the British. It is nineteen miles long, and fills an important place in the economy of the great establishment. But the driver and the fireman of every engine still have to alight to set the points, and sometimes to apply the breaks. It was so in the old times, and none of the officials seem to have thought it advisable to bring about a change of methods.

Coney Island's Bicycle Road.

Probably one of the freak roads best known to the public is the bicycle railroad, by reason of its having been seen in action in two or three places in this country. It was not so long ago that the last remnants of the Boynton bicycle railroad were removed from the stretch of land that lies between the western part of Gravesend and Coney Island. The invention was precisely what its name implied; a locomotive and cars fitted with wheels *à la* bicycle.

The length of the Coney Island road was over a mile, and on one occasion the writer, with some friends, covered the distance in what was alleged to be half a minute. But the idea didn't seem to strike the traveling public or the "angels," and so it flickered out. The gyroscope-train, it is true, runs on a monorail, but its underlying principle is vastly different to that of the Boynton invention.

People in search of thrills can be accommodated by several roads now running. Take the Pike's Peak line, for example. The engine and car, with the assistance of a cog-wheel arrangement, crawl up the side of the mountain that assumes a shivery angle in a good many places. There is absolutely no danger, however, and the ride is wonderful.

On the other side of the Atlantic these thrillers are pretty numerous. The line over Mont Cenis includes a good many startling inclines. The Lickey incline, on the Birmingham and Gloucester branch of the Midland Railway, is the steepest in England with one exception. The guide-books describe it as "safe but nerve-trying."

Mont Pilatus, near Lucerne, Switzerland, is ascended by a road that is about as steep as can be well imagined. Here, again, the cog-wheel principle has made good, much to the comfort of thousands of tour-

ists that prefer to do their mountaineering in a comfortable car.

But, for real sensation, the line up the side of Vesuvius is unapproachable. It is decidedly steep, in the first place, and the region through which it passes suggests that you are running over the top of an uneasy and boiling caldron. There is steam and sulfurous odors, and, very likely, sounds of a disturbing sort. In certain parts of the line a thick wall has been built "to protect the tourists from sudden advents of lava," as the guide-books have it.

Last of all, where the road ends abruptly, there are pillars of smoke, perhaps tongues of flame and subterranean mutterings and grumblings. What more could the sensation-loving visitor desire?

This Is the Shortest Road.

The late Sir George Newnes, the publisher, was the proprietor of the steepest and shortest road in the world. It connects Lynton and Lynmouth, Devonshire, England, and cuts through a cliff for the greater part of length, which is only nine hundred feet. The rails, which are bolted into the solid rock, have an incline of one foot in one three-quarter feet! The cog-wheel system is used in connection with its operation.

In West Somerset, England, about twelve miles back from the sea, is a range of high land known as the Brendon Hills. Just fifty years ago rich iron ore was discovered on the tops of these hills, and a line was constructed from their base to the little port of Watchet, for the purpose of conveying the ore to small schooners, and thence to Cardiff, Wales, there to be smelted.

From the foot to the top of the hills an incline about a mile in length was constructed that, in point of length and steepness, was a rival to the Lickey incline. Flat cars were drawn up the slope by a steel rope, and it was considered a fairly plucky feat to squat in the bottom of one of these cars and be speeded to the top.

One day it was discovered that the same kind of ore could be bought much cheaper in Spain, so the mines and the line were abandoned. So, too, was the village of Brendon, near the mines, and one or two hamlets at the foot of the hills. To-day the right-of-way is rusting, and the rolling-stock has either been removed or is lying around, the sport of the elements.

Fifty years ago the Great Southern and Western Railroad of Ireland undertook to operate a road from Birr to Parsonstown. Part of the needed funds were supplied by the parent road, part by local subscribers, and still another portion by the Parsonstown board of works. The new line was a failure, and when the lease of the G. S. and W. expired in 1873, it was not renewed.

The board of works then stepped in with claims against the property. So did the local tax-gatherers. So did some of the private subscribers. A legal tangle ensued, and nobody seemed to quite know to whom the remnants of the road belonged. The population roundabout realized the situation, and began to make the best of it.

A system of plunder was begun, and so thoroughly carried out that by the year 1885 practically nothing of the road remained except its memory.

Everybody who lived in the neighborhood appears to have taken a hand in assisting the road to disappear. Points, signals, rails, signal-cabins, turn-tables, gates, bridges, station buildings, sleepers, in fact everything, vanished.

The After-Dinner "Limited."

There is a road that is given to conviviality. It is known as "The Wine and Cigars Transportation Service," and was built for its present owner by the firm of W. G. Armstrong, Whitworth & Co.

The line is sixty-six inches in length, or, rather, oval. It has an engine, tender, and four coaches. The first of these is a correct model of the locomotives used by the Great Western Railroad of England. It is made of silver-plated sheet brass.

The coaches are of wood, with brass mounting, and the wheels and axles of brass. The track has silver-plated rails resting on mahogany sleepers. The rails fish-plates, etc., are accurate models of the real things. The gage is three and one half inches. The right-of-way can be laid in fifteen minutes. The train can cover the full distance in a few seconds.

This interesting little road is used on the dining table of the owner when the time comes for coffee and cigars. The last coach, which is open at the top, is loaded with fifty cigars. The other three carry each a cut-glass decanter. The train is operated by an electric current that is controlled by a switch handled by the host.

BLANCHARD THE BOOMER.

BY H. M. LOME.

The Camera May Not Have Unlocked the Trouble, but It Got All the Blame.

MR. BEN BLANCHARD was a small, chubby man, with baby-stare eyes and an infantile smile. He called himself a community-promoter. This, as must be admitted, was a more taking title than that of land-boomer, especially when much of the land so boomed was productive of little else than sand-burrs, sage-brush, cacti, jack-rabbits, and a fair sprinkling of rattlesnakes.

That is by the way, however. If you make inquiries among his Eastern friends —especially in Montague Street, Brooklyn —you will gather some picturesque estimates of Mr. Blanchard's business abilities. Financial persons of Brooklyn pride themselves on being possessed of a certain Yankee shrewdness which steers them clear of the wiles of the average schemer.

Apart from that, no man is considered reliable until he has been properly introduced by an old Brooklynite. This once done, he is established in their confidence.

Now, Ben Blanchard managed to make his entry into Montague Street under the auspices of a certain Brooklynite of ancient and honorable lineage. Through the introduction thus afforded him, the community-promoter made a number of acquaintances of a highly beneficial sort.

Among the communities which Blanchard had brought into being were a couple in western Kansas. At various points farther west he was in touch with other promoters to whom he introduced "good things" from the East, receiving in return a percentage of the ensuing plunder.

Once a year he was accustomed to issue invitations for a Western trip to a dozen or twenty of the rich and "easy" people whom he met in the East. The junket was done in fine style. A special car with attendants was provided, the food was excellent, at Topeka and the stopping-places beyond the local boards of trade did honor to the distinguished visitors, and so did the local newspapers to the extent of many columns.

During the very last trip engineered by Blanchard I acted as "historian"—to use the Blanchardian term. In reality, I was his press-agent. Thus it was that he happened to have a certain experience with railroad superstition.

The party, after visiting Denver and Manitou, was on its way east. At Pueblo, one afternoon, there was a change of engines, and, as it subsequently turned out, the engineer had orders to "let her lick" across the prairie so as to show the Eastern gentry that there was nothing slow about that particular section.

An old-time 'dobe house, not far from the depot, had excited the interest of some of the party, and while awaiting their return the writer walked up the platform, carrying a kodak of goodly proportions. Jim Dell, the engineer—tall, lank, and sunburnt to the hue of an Indian, with oil-can in hand —was just getting into the cab. His fireman followed, wiping his fingers in a clout of greasy waste. The camera was made ready for action.

Dell wheeled sharply as the bellows-catch of the camera clicked. Then he frowned at the instrument and its owner.

"You're sure thinkin' of gettin' a picture of this here machine?"

I said that was my plan.

"And of me and my pardner?"

I nodded.

"Well, I'm saying this, I am. The ma-

chine can't get away from you, I s'pose. But I'll be durned if you get my face or Bill's inside that contraption. Why? For reasons—good reasons! I've never had my picture took yet by one of them black boxes that was owned by a passenger but what trouble of several sorts followed. Ain't that the truth, Bill?"

Bill grunted assent.

Then the pair clambered hastily into the cab, and even as they did so the bulb was pressed, and a good negative of two greasy rear-façades was secured.

Dell followed instructions in the matter of speed, as a roaring, swirling wake of dust and dried cactus attested. But the going was too good to last.

Whether the hoodoo in the "black box" bestirred itself, or whether Bill got too busy with the fire-shovel, the narrator knoweth not. The fact remains, however, that less than fifty miles from the starting-point the engine and the car came to a jagged halt.

As the camera registered a record of the wreck, Jim and his helper cursed Eastern dudes whose hoodoos worked mischief with Western locomotives.

It was three hours before Pueblo furnished another engine that, even to the lay eye, looked grouchy and superannuated.

"It's that confounded old highbinder, No. 5," Jim was heard to mutter as the fresh engine wheezed into sight over a roll of the prairie. "Hear the durned bron-i-cal lungs of her."

Anyhow, No. 5 was coupled up, and Jim and his helper proceeded to throw it into her for all that they were worth, and a trifle more than she was. Thirty miles had not been covered, when the car seemed to turn itself into an aeroplane for a sickening second or so, came back down on the rails with a spine-jarring thud, and then stopped with a suddenness that threw people and things in unstudied heaps throughout its length. Luckily the camera was unhurt.

Naturally everybody made for the doors. A few left by the windows. The cause of the unscheduled stop was plain. No. 5 had snapped her driving-rod near the middle,

"I'LL BE DURNED IF YOU GET MY FACE OR BILL'S INSIDE THAT CONTRAPTION."

and it had smashed the cab to fragments. Bill and Jim had apparently vanished into thin air. The wreck was striking, and even picturesque, so the camera was made ready.

Then we were all made conscious of a gaunt, black, and blood-covered apparition arising from a near-by clump of sage-brush, swearing horribly, and picking burrs from out its cheeks and hands. It was Jim disguised in his gore and the grime of the accident. He lifted up his voice and yelled.

"What did I tell you about that black box? I tell ye all," went on Jim, addressing the tourists collectively in a roar, "if

"WHAT DID I TELL YOU ABOUT THAT BLACK BOX!"

that there box has a berth on the car ag'in I don't drive no engine in front of it!"

"You hear him," snortingly supplemented Bill, who now appeared from the other side of the engine. He had evidently fallen face downward into a clump of cacti, and the spines in his nose and lips made him speak snuffingly.

"And," added Bill, shooting a malevolent glance at the camera-owner, "if I had my way there'd be a certain fool party left behind on the prairie in company with his fool machine."

It took much persuasion, argument, cajolery, and entreaty before Jim gave consent for the camera to travel behind him, and when he left us at South Hutchinson, Kansas, he wore an evident look of relief.

But that was not the whole or the end of the hoodoo. On the way to Kansas City one of the party let a valuable gold watch slide out of an open window. At St. Louis it was discovered that a flange of the car-wheel had suddenly worn as thin as cardboard, and that a bad accident had been narrowly averted.

Before this, when on the home-stretch between Buffalo and New York, Blanchard arose, and, addressing the party, expressed his gratification at meeting so many men of congenial disposition and sterling worth; and, in order to commemorate the occasion, he was going to do his good, his ever dear, friends a small service, etc., etc. He was going to let them in on a little deal which he had intended to keep all to himself, but which, on second thoughts, he had determined to share with those whose friendship he had learned to, etc., etc. Every man bit.

Six months later I met a member of the party on Broadway.

"Say," said he, "have you still got that camera of yours?"

"Yes. Why?"

"Oh, nothing. But I begin to believe in Jim and his superstitions. Maybe if the camera hadn't brought bad luck on board, myself and the other idiots wouldn't have lost large sums to Blanchard."

Bill's Yellow-Fever Run.

BY SAM HENRY.

THE TRUE STORY SERIES. A mail train has to make a run across the State border to a town seventy-two miles distant and return before midnight, at which time, owing to a yellow-fever quarantine, the draw over a certain river would be turned and no traffic allowed to enter the county. The train left on its trip at 9.15 P.M., having before it the stupendous task of crossing two trestles, blocking six grades, unloading mail, taking on oil and water, and returning over the same ground, all by twelve o'clock. It arrived at its destination at 10.40 and started upon the return trip at 10.48, traveling part of the time at the rate of more than a mile a minute.

TRUE STORY, NUMBER FIFTY-FIVE.

The Boys Back in the Mail Car Were Wondering Most of the Time if No. 9 Would Make the Trip Without Leaving the Rails.

IF you talk to the boys of the Southern Pacific you will be told of some remarkably fast runs which were made on that line. And he who tells the story will start his narrative by saying: "It equaled Bill's yellow-fever run."

If there is anything that gives railroad men a nightmare it is trying to operate trains during yellow-fever epidemics. One county quarantines against another; one village against another; others will have no quarantine restrictions at all; the company will receive instructions from a county that no trains will be allowed to stop there; then, in a day or so, the restrictions will be removed.

There is no limit to the authority of the county and village health boards, and at the rate they tie and untie traffic, they seem to be panic-stricken.

It was six years ago when I was up against the real thing. It was almost impossible to move a train because the company could not get men who had been in a given place long enough to be allowed to enter or pass through another county.

Between New Orleans and the Texas State line, the Southern Pacific had cut the service from four daily trains to one, each way, and it was not an easy matter to maintain even this service, operated merely to deliver mail and to give quick relief in expressing food.

EDITOR'S NOTE: All the stories published in this TRUE STORY SERIES have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single copies, 10 cents.

There were few passengers because it was difficult to tell when quarantine officers would board the train with restrictions against the locality from which the travelers might come.

All the passenger crews between Lafayette and Houston had been caught on the Texas side except one, and this crew doubled the road daily from Lafayette to the Texas State line.

Bill, the engineer, was what we call a "goer." Whenever he was late or received his train late, he did not use the whole division to make up the lost time, but pounded his engine until the time was gained. He didn't believe in wasting steam making long whistles for blind sidings, but gave a little startling puff and kept going.

To Bill, all track was first-class unless there were special orders, or signals out. On the date that this particular run of which I am writing was made, we arrived at Mermentau, the county line of Calcasieu County, which flew quarantine signals. No one was allowed to get off in this county, and any one coming east of Lafayette could not so much as pass through.

The Draw Would Be Turned.

We arrived at Mermentau at 8.30 P.M. The health board had just passed new restrictions that the draw over Mermentau River would be turned and no traffic allowed in the county after twelve o'clock, but the railroad company was trying to get an extension of time so as to allow our train and crew to return the next morning.

We had about thirty thousand pounds of mail aboard which we were scheduled to deliver at the Texas State line. There was time in which to make the required trip, but in order to maintain the service between Lafayette and Mermentau our crew would have to be at the latter place.

Bill suggested that our train be cut down to a coach for the crew and the mail-car, and he assured his listeners that he would have us there and back before twelve o'clock, the time set for the enforcement of the new restrictions.

No one thought it could be done, as it was then about nine o'clock and we would have to cover a distance of a fraction over one hundred and forty miles, flag six railroad crossings, take oil and water, cross four trestles of two miles each, with slow signals over them, allow time to unload our mail, go round the Wye at the State line and return.

However, we made ready for the trip as quickly as possible. Just before starting, I heard Bill tell one of the express messengers, who was left behind, to have a bottle of "nervine" ready for the four mail-clerks upon their return. "We will be back by 11.57, not later than 11.58," he said.

Maintaining High Speed.

By a quick mental calculation we knew that to make this run we would have to maintain a speed of seventy miles an hour. Our engine was a very large one with 74-inch drivers. We got our signal at 9.15 P.M. On the start we could scarcely keep our feet. It seemed as if the car was pulling right from under us.

We stopped at Jennings, threw off eight hundred pounds of mail; slowed down at Welsh, Louisiana; flagged Watkins Crossing; stopped five minutes at Lake Charles water-tank for oil and water; three minutes at Lake Charles, threw off two thousand pounds mail; flagged K.C.S. crossing; were three minutes crossing Calcasieu trestle and flagged Lock-Moore crossing.

At Edgerly, where there is a slight curve—so slight that a speed of forty or fifty miles an hour is not noticeable—one of the boys was getting a drink, holding to the cooler, which was tightly fastened. The swing was so sudden that he jerked the cooler loose and with it struck the opposite side of the car, breaking out a window light.

We passed Sulphur so fast that the operator there had called up his old friend at Vinton, the station beyond Edgerly, and told him to look out for No. 9, saying, "She's going like a meteor."

Vinton replied, "I see her headlight now coming round the curve at Edgerly, five miles away. There's an awful cloud of dust and a sudden roar outside like a storm coming up. No, I don't see No. 9's headlight any more."

The Operator Convinced.

About that time he heard the operator at the State line reporting No. 9 in sight. He went outside and found the night clear and still, the mail-sacks we had dropped,

and a yearling thrown up on a five-foot platform and mashed flat against the depot. All this convinced him that No. 9 *had* passed.

He jestingly called up the operator at the State line and asked to be told when we started back that he might go out in the prairie and view us from a distance, then, perhaps, he would be able to report us when we passed.

We arrived at the State line at 10.40 P.M. While we were unloading, Bill went round the Wye and coupled on. We were ready to start back at 10.48 P.M., with seventy-two minutes left in which to make the seventy miles. There were two long trestles to cross. Going over them, we could not make over eighteen miles an hour. There were also three railroad crossings to flag.

Before we started on the return trip, I heard the conductor tell Bill that the post-office people at Lake Charles wanted us to stop there one minute so they could clean out that office, as there was no telling how long the tie-up would last.

The conductor said, "I have told them we cannot do it, and they are trying now to get a five-minutes respite on the turn of that draw so that we can stop."

Bill replied: "Tell 'em to have their mail at the depot in about twenty-five minutes. We'll stop. We don't need the respite."

32 Minutes for 37 Miles.

We left the State line at 10.48 P.M., and stopped at Lake Charles at 11.28 P.M., having flagged the two railroad crossings and gone slowly across the two trestles. Leaving Lake Charles, we had thirty-two minutes in which to make thirty-seven miles and to flag one railroad crossing.

In the mail-car, we did not believe this could be done, so, after leaving, one of the boys went ahead, to the coach where the train crew was, to see if they were going to allow us the extra five minutes. He was told that it was impossible, and that we had just as well prepare for a long camp on this side.

By this time everything outside seemed to be a solid mass—we were going so fast. Our car was fairly dancing, and some of us were walking the floor looking rather wild.

We covered Lake Charles to Watkins Crossing, twelve miles in ten minutes; Welsh, ten miles, seven minutes; Roanoke, four miles and one half, three minutes and a half; Jennings, five miles and a half, four minutes.

Like the Whip-Crack Game.

Before reaching a very sharp curve at Jennings, we were certain Bill would hold them a little, but, so far as we could tell, he did not make a check. I have heard of trains going around curves with only the outside wheel on the rail, and I am ready to believe that that was the case with us. At any rate, I was reminded of the old "whip-crack" game I used to play at school, when I was on the tail end.

We covered the distance from Jennings to Mermentau, five miles, in a few seconds less than four minutes, and thundered across the draw at 11.57½ o'clock.

Every man in the mail-car was ready to thank Heaven it was over.

We found Bill as cool as could be, smoking his old pipe and looking over his engine. When I congratulated him, he said:

"The old girl did rock a little on those curves. While I knew we had plenty of time to get across, she was doing such pretty work I did not have the heart to shut her off.

"That's good track along there, and, if it had been necessary, she could have done it one minute and a half sooner."

JONAS AND HIS CONVICTIONS.

BY MAC DUFFIE MARTIN.

He Was Brought Face to Face with Outlaws Before He Learned the Value of Relenting.

JONAS OKEMAN had been a creature of convictions from childhood up to gray hairs. Usually such as he are not content with pampering pet ideas or cherishing chosen practises. Instead, they want the universal adoption of their whim-whams to everything in life.

Jonas was otherwise. All he asked was that he be allowed to gnaw his bone of undictated beliefs undisturbed by the yelps of the orthodox or the cold noses of the disapproving and the meddlesome. Such immunity was not always his, however, for the conventional insistently consider a departure from conventionality as a rebuke and a challenge. But Jonas refused to purchase peace at the sacrifice of free speech or action. He had about him a touch of the porcupine.

He never looked for trouble, yet he declined to get out of the way of it when he saw it bearing down upon him.

Jonas's name was placed on the scholars' roll of the little school in the tiny New Hampshire village where he first opened a pair of blinky eyes. In this old school he discovered that the governmental rules among his fellows were as simple as they were effective—up to the time they clashed with his convictions.

For instance. If Ike Smith could whip Billy Jones and Billy Jones could whip Joe Robinson and Joe Robinson could thrash you, you were supposed to unmurmuringly accept the dictum that Smith and Jones could not only "do" you—but "do" you good whenever the fancy seized them. The arrangement was satisfactory to the big boys and fraught with much unhappiness to the smaller ones.

But to Jonas came a conviction of a revolutionary sort. He couldn't see why he should be walloped by the twenty just because he had failed to wallop the one, and he said as much. Then "Red" Flanagen, who could thump "Tode" Allen, who bested Jonas on his first day at school, twisted the latter's nose until its tip assumed the hue of a frosted beet. Jonas, urged by pain and a sense of the righteousness of his beliefs, flew at Red like a small catamount.

He bit, scratched, kicked, hit, and yelled at one and the same time, and ever and anon butted his antagonist in the stomach.

Red, the astonished, tripped and fell; whereupon, I regret to say, Jonas jumped on him, and tried to fill his eyes and mouth with New Hampshire soil. Then the schoolbell rang, but Red, being unpresentable, played "hookey."

After school, "Pindy" Milliken, the next warrior in succession, undertook to lift Jonas off the ground by his ears. Jonas, in whose veins the joy of battle was still tingling, repeated his whirlwind tactics. Although Pindy came out the victor, he did so at the expense of a tooth and a galaxy of bruises.

"Been fighting, boy?" asked Jonas's father, the village harness-maker.

"Yes, dad," replied the youngster, whose conviction was that his appearance rendered the confession necessary.

"What for?"

Jonas recited the facts of the case—and he always told the truth.

Mr. Okeman reflected. Then he gave Jonas five cents.

"It's wrong to fight," he said; "but it's wrong to run away when you know you be in the right."

So Jonas, with the parental approval backing his convictions, lived for a week

amid combat. Then his father, meeting some of the larger boys, remarked casually that if any one of them laid further hands on his son he'd take a hand in the matter himself. The larger boys, secretly glad to secure peace with Jonas, humbly yielded to a show of superior force.

So the old order of things departed, and from thence on each boy stood on his individual pugilistic ground.

Another time, the teacher, a bumptious young man, forbade the boys going fishing or swimming during recess in the willow-shaded stream that ran through a field not far from the schoolhouse.

Reasons for the ukase were not given. Jonas had a conviction that the teacher's jurisdiction over him began and ended with the school-hours.

So at noon that day he caught "shiners" and swam across "Crosby's Hole." The teacher saw him, and the teacher thrashed him. Jonas hurled a ruler and several books at the teacher. Then he made a dash for the door and sped to his father's shop. He told the story to his father, who cuffed him thrice for throwing things at the teacher, and then patted him on the head for being a brave lad.

Slipping a short but stout dog-whip into his pocket, the elder Okeman rose and bade his son follow.

The interview with the teacher that followed was brief.

"You've punished this here boy of mine for something he done when he wasn't in school. Who gave you the right to do that?" asked the elder Okeman.

"He disobeyed orders."

"Orders that you'd no right to give! Now, see here, young man, you've either got to say you're sorry, and mighty sorry for this, or you can take a licking from me, or I'll have you arrested for 'sault and battery! Which is it to be? Come!"

The teacher apologized, and Jonas, his convictions vindicated, neither fished nor swam again during recess.

Jonas's mother died a few days after his birth. A maiden aunt kept house for the widower and his son. The latter learned his father's trade, and had just attained his majority when his father died and he came into possession of the business.

Jonas grew to man's estate, and became the real thing in the old-line country merchant.

His financial standing was pretty fair. The stock of the business was worth about one hundred and fifty dollars; the weekly income averaged ten dollars, and there was about three thousand dollars lying to his credit in the Guernsey Bank, Sandston, twenty miles away.

Besides, he owned the cottage that he and the aunt lived in, and had an equity in a small, stony farm. Altogether, he was looked upon as one of the solid young men of the community; for in those days people had not that contempt for hundreds that even hearsay contact with millions inspires now.

Jonas had his full share of the thriftiness that is begotten of life amid grudging ground and bleak breezes, and many were the talks that he had with his one-time boyish foe, but now closest friend, Tode, otherwise Theodore Allen, in regard to ways and means of expanding the currency.

Allen was the son of a well-to-do farmer. Cows and plows and chilblains, however, were not to his liking; so, after much parental opposition, he secured a place in the Guernsey Bank, first as office-boy and later as clerk. As a side issue, he took the local agency of a Boston life insurance company.

On several occasions Theodore attempted to persuade Jonas to take out a modest policy on his life. But one of Jonas's rock-ribbed convictions was that such companies existed for the purpose of making rich their officers and making poor their policy-holders. All the talk in the world would not move him.

"I have my convictions," said Jonas.

The days came and went with Jonas in peaceful, prosperous fashion. The maiden aunt died, and in her place he installed a wife, she being the daughter of the village carpenter. Goodly was she to look upon and good tempered withal, for Jonas had a profound conviction that nearly all married unhappiness arose from acid dispositions on the part of one or both of the contracting parties.

The stony farm had been sold at a good round profit to a company who wanted a portion of it for factory purposes. Jonas, acting on a hint given him by a Boston friend, made several other investments which turned out well. He was being looked upon by his neighbors as an unusually fortunate man.

One day the good, childless wife died. Jonas remained, but not many of the things or people of his schoolboy days were left.

Factories were springing up in and about the village, and strange faces were many.

His trade had dwindled to a mere nothing—a fact that gave him but little concern financially. The Guernsey Bank had passed into the hands of strangers—a happening that worried him greatly. Many of his friends had gone elsewhere—for a railroad is destructive to the instinct of locality.

Tode Allen had long ago emigrated to the West. Jonas felt a stranger in his own land. He was fifty-nine years old, in good health, comfortable circumstances, and yet poor in the things that make life worth living.

Fate had given to him and taken from him unsparingly, and now he was harboring a growing conviction that congenial human companionship would be infinitely preferable to his present state of loneliness.

So he wrote to Allen, with whom he had kept up a desultory correspondence for years. Allen had had his fill of fun and danger in the West, and, at length, had located in a permanently prosperous mining region in Colorado—a region of frame houses, a brick church, and holes in the mountainsides that cost millions to make and maintain.

He had struck the place at the inception of its prosperity, opened a general store, gave credit liberally, and won confidence and respect by his fair dealing and fearlessness. In the course of his upward progress he started a bank. He was its manager, cashier, teller, and janitor.

The bank flourished amazingly. Besides the local business, which was not inconsiderable, it had a savings department that grew with the months, and the amount of money that it sent each week to Europe and the Eastern States, to relatives of the miners, ran into thousands.

Tode Allen, partly through his experiences with Western conditions and partly through his early absorption of New England conservatism, made investments that would have met with the approval of even Jonas.

Incidentally, Allen had married. His son, who was now bordering on early manhood, was one of the bank-tellers.

Allen had never forgotten that his current good fortune was more or less directly due to Jonas. The financial end of the obligation had been discharged years before, but Tode wanted to do more for his old friend. Among other things, he had on several occasions written him, begging him to visit the Dunstan's Level region, as the mining center was called.

Finally Jonas made up his mind to go.

On the day that he arrived Tode and his son were at the depot to greet him.

"I've come out here to stay," said Jonas that night after a jolly dinner.

"Bully! Uncle Jonas!" chimed in young Allen, between whom and the visitor a great friendship had arisen.

Mrs. Allen smiled approvingly, and asked: "Now, Mr. Okeman, you are going to make your home with us. We can make you quite comfortable."

"Thanks, ma'am; but I'd rather not. I'd better live elsewhere," answered Jonas.

The Allens looked puzzled. "Fact is, y' see," went on Jonas, "I'm getting old and a bit fidgety, and have my fads and fancies on me sometimes, and I'm not going to upset this household with any such foolishness. So, with your help, Mrs. Allen, I'm going to find a place of my own near by, where I can growl and go to sleep with my boots on and behave scandalous with the dinner, and nobody to say peppermint to me."

Persuasion was useless, and the end of the week saw him comfortably installed in a four-room cottage, about a hundred yards from the Allen house. The ancient but active widow of a miner acted as housekeeper for him. He saw as much of the Allens as ever. Theodore Jr. and Jonas became the greater friends with the passing of the weeks.

One day Jonas dropped in at the bank.

"Tode," said he, "I want to have a chat with you." The manager led the way to the private office. The interview was brief. Jonas had a conviction that it would be a good thing for him to realize on his Eastern investments and open a deposit account with the proceeds in the First Bank of Dunstan's Level. This conviction was followed by the action, and, two months later, Jonas Okeman was credited on the books of the bank with $18,725.

"And mind you, Tode," said he, as he received his bank-book, "much as I like you, I wouldn't have put a penny with you if you hadn't assured me that you hadn't any dealings whatsoever with any darned insurance company, in the way of taking their stock or paper for collateral. If you ever should be tempted to fall from grace

in the way of loaning any of those chaps money, you'll please notify me before you do so, so that I can get out right away."

"It's an agreement; I promise," replied the other. "But, Jonas, you are prejudiced beyond reason. Some of the financially strongest corporations in this country are insurance companies."

"Mebbe, mebbe; but I hold to my convictions."

"As you always did," chuckled Allen.

"As I always did; and this"—waving his bank-book—"is what I made by 'em."

The Miners' Provident and Insurance Association of Dunstan's Level was that which its name implied. The Level was only "unionized" to a small degree. The association, in a fashion, took the place of the unions among the unorganized men by guaranteeing weekly sums in case of death, sickness, and in some instances destitution, each payment being in kind and proportion to the amount of the member's fee.

It was a small but sound institution that was well patronized by the miners. Eastern men were behind it, and it had the approval of the majority of mine-owners. Its funds were almost entirely invested in safe properties owned by its backers.

Erasmus Whopple, the manager of the association, prior to becoming connected with it, had been successful in insurance circles, which means that he ate, drank, slept, and talked insurance affairs and things appertaining thereto from morn till night. Such is the essential and the penalty of achievement in that profession which looks upon mankind only from the viewpoint of a "risk."

For the rest, Mr. Whopple was large, heavy-voiced, and somewhat self-important. He wore a massive gold watch-chain, and his white vest was in evidence at all seasons of the year. He had a profound belief in the infallibility of his judgment.

Mr. Whopple was the one fly in the otherwise unpolluted ointment of Jonas's content. Being a friend of the Allens, the association's manager was not infrequently at their home, where, to Jonas's intense disgust, he would pour forth a flood of insurance talk from the time of his entrance to the hour of his exit.

Occasionally, Jonas would cause a moment's check of the turgid torrent by sarcastic comment or dry retort, after which Erasmus would boom and thunder along with added volume.

Queries on the part of Jonas as to whether Mr. Whopple had ever insured a man against being talked to death by an agent, or whether any policy issued by him contained a restrictive clause against killing a "jibbering jackass," will sufficiently indicate his feeling regarding the manager. In course of time Jonas passed from passive distaste to active dislike of Mr. Whopple, and Mr. Whopple regarded Jonas with emotions much the reverse to friendly.

In the following spring ripples of trouble began to fleck the usually placid surface of life at Dunstan's Level. There was a strike among the miners—a bitter, penetrating, hot-blooded strike.

The inevitable followed. There was a rush of outside men who were only too glad to get a foothold. These men were met and threatened by the strikers, and the elements of trouble were in evidence on every hand.

By May, Dunstan's Level was in perpetual turmoil. Many of the mines were closed because of the inability of the local authorities to protect their employees. There had been bloodshed, and trade was at a standstill.

Theodore Allen was diplomatic, and refused to be drawn into any active partizanship or even discussion. All he would say was that he hoped, for everybody's sake, that the trouble would be settled to everybody's satisfaction very quickly.

Mr. Whopple, however, used his fatal gift of words in unstinted denunciation of strikes and strikers. He had not lived in the West long enough to know the value of silence in times of trouble.

Jonas Okeman had an outspoken conviction that things were going to be a sight worse before they got better.

Theodore Jr. rather enjoyed the situation, having the love of a "scrap" common to red-blooded youth.

Then came a series of sympathetic strikes. Thugs and thieves, smelling prospective plunder, began to rendezvous at the place. Violence increased, and pretty nearly every citizen went armed by day and slept with his gun within reach by night.

In the interval, there had been a steady withdrawal of funds from the bank, and a coincident demand on the resources of the association.

One afternoon Jonas Okeman was visited by Theodore Jr., who seemed to be out of breath.

"Dad wants to see you right away, uncle," he said.

"Why?"

"Don't know, but dad isn't given to hurry things unless he's got a reason for it. He wants to know when you can come to the bank?"

"Tell him I'll be there in five minutes."

Theodore Jr. departed.

"Jonas," said Allen, in the sanctum of the bank, "Whopple has got himself into trouble by shooting off his mouth."

"Naturally," chuckled Jonas.

"But that's not all. He's likely to get me—or the bank—into serious trouble also."

Jonas said something under his breath.

"You see," went on Allen, "in the East a man may fail for a million or so half a dozen times during his business career and bob up serenely after cash arrangements with his creditors. Here in the West—at least in the mining districts, and so far as regards a business like mine—it's totally different

"If I should happen to once go down, I'd never get up again. A man who has the reputation of being off the square among these men may as well get out and never come back."

"Well, well," said Jonas, "what of it—what of it?"

"This much," replied his friend. "Whopple, by his fool talk, has got a black mark against him in the miners' books. Yesterday the finance committee of the association waited on him and asked him for a subscription. The committee knew well enough that he'd refuse."

"Naturally," chuckled Jonas again.

"Well, the committee left, and a little later I received a tip from one of my friends that to-morrow afternoon a run will begin on the association that will close its doors."

Jonas grinned broadly.

"That's all very well," cried Allen, as he eyed Jonas sharply, "but such a run may mean shutting up the bank also."

Jonas sobered instantly. "How?" he asked.

"Just this way. These fellows here are like sheep. If one takes alarm, so do the others. You can't reason with them. The association and our bank both have their money. If suspicion attacks one institution, the other is bound to be more or less affected, and in the same disastrous way. Both of our doors will be besieged."

"Well," said Jonas impatiently.

"Well," replied Allen. "I've told Whopple what I've heard. He, in his self-satisfied manner, refuses to believe it. Two days hence he'll learn the truth of it, to his cost and sorrow."

"Well?" asked Jonas again.

"We must save him," retorted Allen, "from the consequences of his folly, for our own sakes—if you consent."

"What'n thunder d'ye mean?" cried Jonas.

"Simply this. If there's a run on the association, Whopple, so I've ascertained, will need about thirty thousand to meet it and restore confidence. I know absolutely that the association is sound, and that he can get all the money he wants from the East twenty-four hours after his eyes have been opened. But his eyes have got to be opened.

"Now, if he does make good during the first hours of the run, the bank will not be jeopardized, because the panic will be checked and the confidence of the miners restored. If he isn't helped out, you know what the consequences will be.

"We are perfectly solvent, but, owing to the current condition of affairs, it would be several days before we could borrow money or realize on our securities. The question isn't one of days, but of hours."

"Well?" asked Jonas once more.

"It amounts to this: we must, if we can, help Whopple by letting him have all the cash he wants on the security of the association—notes or stock—or take chances of going down in the crash that will follow the association's temporary suspension."

"Then you want—" began Jonas.

"I don't want you to run counter to your convictions," said Allen, with a ghost of a smile, "but I've put the situation before you. I am keeping my promise to you in regard to a prospective fall from grace, as you once put it. I'm contemplating a temporary alliance with an insurance concern, not from choice but from necessity.

"Now, Jonas, I'm not going to disguise the fact that if you withdraw your deposit at this juncture, it will add immensely to my difficulties. In fact, it may prevent my helping Whopple altogether, and so bring about that which I'm trying to avert. But I'll stand by my agreement, nevertheless, and give you your cash right on the spot. We've got nearly twenty-six thousand in the safe in currency."

"Why do they start the trouble to-morrow afternoon, instead of the morning?"

"To prevent Whopple from wiring to his Eastern people for help in time to stall off the continuance of the run. The result will be that the morning after next the association will be surrounded by a howling mob. They'll want blood or money. Nothing short of one or the other will save Whopple, and if he goes down, so do I."

"Whopple is a consarned polecat," said Jonas slowly. "If it hadn't been for him you wouldn't be in this peck of worry. See here, Tode, you know I'm not a young man, and if I lose my pile I can't hope to make it again. And I don't exactly like Whopple.

"I want you to give me till to-morrow morning to think this thing over. It's kind o' sudden, you know. My convictions are that you're somehow or other doin' a foolish thing—but I'm a bit fogged on this point. Anyhow, I'll let you know early to-morrow."

That night, as Jonas sat in his cottage struggling with his convictions and his inclinations—the first prompting him to withdraw his money from the bank, and the last to allow it to remain—there came a knock at the door.

Jonas answered it. Outside stood a tall, bearded man. He declined to enter.

"Young Allen's got into a fight up at Wide Slide," said the visitor, "and got pretty badly done up. He wants you to come to him, 'cause he wants you to tell his people."

Jonas felt his knees tremble. Wide Slide was the aristocratic suburb of the Level.

"Is he badly hurt?" Jonas queried.

"Top of the head and arm busted," said the miner. "Nothing terrible. But he wants to see you bad."

Jonas did not hesitate. In a few minutes he was trudging by the side of his guide. Wide Slide was a natural sort of terrace on the side of the mountain that overlooked the Level—a street of spacious distances and pleasant homes. Three streets ran to the Slide from the business portion of the Level, up one of which the two men climbed.

"Where is he?" gasped Jonas, as they reached the terrace, which was dimly lit and shaded by trees.

"Down here a bit," answered the other, turning to the south.

Jonas followed. Then he felt something like a sack thrown over his head. His feet were kicked from under him. Ropes were deftly fastened round his arms and legs.

He was raised on the shoulders of his captors, hurried first over smooth and then rough ground, and at length, half suffocated, shaken by his fall and suffering from the shock of his abduction, he lost consciousness.

When Jonas recovered his senses he found himself lying on a heap of sacks in what was evidently the deserted working of a mine. From certain indications, and in spite of his half-dazed condition, he came to the conclusion that the mine itself was abandoned.

A few yards away a fire blazed merrily, fed by chunky pieces of what once had been roof supporters. On the other side of the fire, and on more sacks, lounged more men, one of them being the black-bearded man.

Jonas blinked hazily at the blaze for a few moments, and then asked weakly: "Where be I?"

"At the National Hotel, Denver," laughed Black Beard. "Excuse the looks of things, but we're having our fall round-up of the furniture and the pictures for cleaning purposes, an' they'll be back to-morrow."

"Quit it, Jake," said a slim, light-haired man surlily. "We've no time to waste in foolin' here. You," he added to Jonas, "take a swallow. You'll need it 'fore we get through with you."

Jonas refused.

"I've got a conviction," he said, "that I ain't exactly in the hands of my friends."

"That depends," said the slim man.

"You do as you're told, and you'll find us friendly enough. If you don't, well—" Here he gave a picturesque and sufficiently blood-curdling description of what would befall the captive.

"All of which highly improving language leads up to what?" asked Jonas.

"We're appointed a committee to collect money to help along the cause from them as won't give up willing. Jedging by the way you've been shooting off yer mouth since the strike begun, you ain't too much prejudiced for the likes of us.

"Consequent, it was felt that it was no good, as gentlemen, to ask you to give up like a gentleman. Consequent, this here committee, with powers fully p'inted, has brought you here to-night to make you do the square thing."

"Go on," said Jonas.

"So this here committee asks you to hand over that four-story pile of yours which is rusting for want of using in Allen's bank."

"How much of it did you say you was convinced you wanted?" said Jonas politely.

"All of it—every greasy dollar."

"Not having my books handy, I can't say what's my balance," said Jonas.

"Don't let that loco you," interrupted another of the men. "We'll just assess you fifteen thousand dollars, and let you off easy."

"But how can I put up when I'm shut up here and ain't got my check-book?" complained Jonas.

"You just write an order for the cash to bearer, sign another order, and we'll do the rest," declared the slim man.

"And if I refuse?" drawled Jonas.

Black Beard smiled grimly. "I wouldn't shoot down a poor, stubborn mule of a critter in cold blood, not for nothing," he said; "I'd only wall him up out of the way where people couldn't find him, and let him have a few rattlers for company."

"But," interrupted one of the others, "not afore we'd toasted his feet a bit—these here holes being sure chilly at nights."

"That's right," assented Black Beard; "and my horse don't object—"

A growl and a warning glance at the speaker from the slim man cut the sentence short. But the incident was not lost on Jonas.

Miners, as a rule, do not own horses. He had already noted the fact that, when a bit of rock fell from the rocking, every man's right hand flashed to where his holster should have been.

Jonas had a conviction that he was in the hands, not of striking miners, but of one of the bands of desperadoes that had been attracted to the Level by the prevailing lawlessness. It was also evident that his capture had been carefully planned—the ruse by which he had been lured from his home proved that.

"Where is young Allen?" he asked the slim man, after a brief silence.

"Don't know, and don't give a hang," was the reply.

Black Beard gave a howl of laughter. "You for certain was roped easy by that there tale of mine. I thought it would fetch you, seeing how frightful fond you is of the kid."

Jonas muttered an inward prayer of thankfulness. The expression on his face caught the eye of the slim man, who smiled cruelly.

"Why, you infernal brood of horse-thieves and rustlers," howled Jonas, "do you think anybody would take you for honest miners? Look at each other's faces, you gallows dogs!"

One of the men struck him, knocking him down.

"I won't say as you haven't guessed near right, pard," he said; "but anyhow, since you give us the name, we'll have the game. So, being as we be horse-thieves, we give you notice that your time for rounding-up your ideas about that cash is cut out at five o'clock in the morning.

"Then if that cash ain't to be ours, it won't be yours no more. In the same way, pard, if we couldn't make use of your carcass while you was alive, we call it certain unfair to let you use it alive either, after all the trouble we have took about you."

Jonas lay and watched the fire in a numbed fashion. His mouth and eyes were burning, his legs faint from fatigue and sore from bruises. A request for a drink of water had been refused. His mind wouldn't respond to his attempts to arrange his thoughts in coherent order. He doubted the happenings of the night, and lay for a time patiently expecting himself to wake in his bed in his cottage.

Gradually, however, his nerves grew steady. At length he was able to sanely ponder on his situation. It was clear, then, that if he acceded to the demands of the gang, he would ruin his friend Allen; and Allen was a year older than himself, with a wife and family dependent on him.

Allen had said that if the bank once closed, his financial career would be ended, and he was too far advanced in years to begin a new career. Then again, young Allen's prospects would be badly blighted—and he loved the lad.

If he refused to comply with the demands, Allen and the boy and, unluckily, Whopple would prosper, be happy, and wonder at the mysterious disappearance of the old man whom the Allens had loved, and who had loved them so much in turn. Jonas almost wished that he had insured his life, as Allen had suggested, for then he wouldn't be in such a fix.

However, he extracted a grain of comfort from the fact that if he still refused

to do the gang's bidding, and they carried out their threats, the boy would be none the worse for that. For he had, within the month, made a will in favor of Theodore Allen, Jr., naming him as sole beneficiary.

By the time that the fatal hour had almost arrived Jonas had lost all sense of fear. Spurred by the conviction that he was about to be deprived not only of all that makes life worth living, but of life itself, by a band of outlaws, the blind rage of the thwarted fell upon him.

The men were sleeping about him, one having been ordered to stay awake and watch the prisoner.

Ere the sentry could arm himself, Jonas grabbed a chunk of smoldering wood from the fire and felled him.

There was an outcry. In an instant all was uproar and the flashing of hitherto concealed knives and pistols.

Black Beard dexterously smote Jonas's wrist with the butt of a revolver, and his fiery weapon fell to the ground. Jonas fell, too, under the pressure of the revolver-butt.

Jonas eyed the battered sentry with ferocious satisfaction. There was plenty of fight in the old man, and he struggled to his feet and struck a blow at the closest of his captors. He paid for his trouble by being bound with ropes, while the slim man sat astride his chest.

"Now," said the leader, drawing his knife, "I'm going to ask you twice if your going to do as we wants about the coin. If you say 'No,' then there'll be a burying in this here working afore breakfast. Once. Will you, pard?"

Jonas, while feeling that either his life or his fortune would be disposed of within the next few seconds, could not help noticing that the garments of the gang were shabby and dilapidated, and that each man looked hollow-eyed and hungry.

"Twice. Will you, pard?"

A magnificent conviction seized Jonas. The eyes of the slim man glittered.

"Let me up, you consarned lunatic!" shouted Jonas suddenly. "I want to talk business to you."

"What for did you say, pard?" queried the slim man, still astride Jonas's chest.

"He said what for," retorted one of the others irritatedly. "Let him up."

"Look here, you chaps," blurted Jonas, "I guess you're doing this because you had to, or thought you had to, times being hard and stomachs empty.

"Well, here's my first, last, and final proposition to you, you poor, miserable, unwashed, starving no-accounts as couldn't get into a measly ten cent limit game. I'll give you twenty-five hundred dollars in cash to divvy—cash, mind you, without your taking the risk of going to the bank—and I'll put it so as the law can't touch you; make it a sort of business deal, you understand.

"So, there you are. Six hundred dollars each, and a hundred thrown in to buy sticking-plaster for this poor gentleman's face."

Black Beard, with a rock-rifting oath, swore that the proposition was good enough for him. So did the others. The slim man hesitated.

"Where's this here cash you talk about?" he asked.

"It's in a desk in my bedroom. I've got the key in my pocket. I can send the key and a note to my housekeeper asking her to give the money to the bearer. I'll invent some excuse to explain my being away all night. You can also have an agreement signed by me that I paid you the money for putting me onto a valuable piece of mining property," and Jonas took a rueful glance at his surroundings.

"Hang me!" declared the black-bearded man, "if I ain't half sorry that I had a hand in this—you're such a real old hoss."

After some objections on the part of the slim one, it was so arranged.

Two of the men took the letter and the key and started for Dunstan's Level, while Black Beard remained guard over Jonas. A fourth man was sent down the trail to watch developments.

Jonas's housekeeper had overheard the conversation between him and Black Beard at the cottage door. At midnight she went to the Allen home to ascertain the condition of young Allen, and to find out if her employer intended to remain away from home all night.

The story resulted in the authorities being notified, and a posse of citizens formed within the hour. At five o'clock in the morning the warden of the State's prison arrived with a leash of bloodhounds.

The scent was quickly found by the dogs, and was being easily carried, when round a sharp turn of the trail came the two members of the gang who were on their way to Jonas's house.

They turned and ran. Revolvers and rifles began to spit and crack. The slim

man went down with a shattered elbow. The other threw up his hands.

The dogs took up the scent with renewed enthusiasm. The third of the gang, having had a previous experience with man-hunting dogs, simply chucked away his gun, climbed a handy boulder, and awaited the approach of the party.

Then the chase led on to the deserted mine. Black Beard heard the dogs approaching, bestowed a hasty kick on the nearest shin of Jonas, and departed into the devious ways of the workings and escaped.

"Tode," said Jonas feebly, as he was half carried, half led down the trail, "you can use that money of mine as you see fit. I've a conviction that things will turn out all right for all of us."

"Mr. Okeman, sir," boomed Whopple, who had been much in evidence with a large belt and a small revolver, "I desire to tender you my profound congratulations on your escape from dangers and difficulties such as we often peruse in the pages of fiction, but seldom meet in the volumes of real life. I do assure you, sir, that when I heard of your predicament I did not hesitate to forthwith arm myself and join the gallant body of my fellow citizens who set forth to rescue or revenge you."

"Thank you, Whopple," whispered Jonas. "I've a conviction that you're not a bad sort—for an insurance man."

Then he turned to his favorite, speaking with considerable softness.

"Theodore, boy, I've a growing belief that you'll be president if you escape being a general or one of them Napoleons down Wall Street way."

That night Jonas Okeman deliberately called on Erasmus Whopple after a long and convincing conversation with his landlady. Whopple was nearly dumfounded. He actually trembled as he led the old man into his little sitting-room.

"Whopple," said Okeman, without any preliminary sparring, "I've a conviction that I'd better have my life insured after all. Seems to me as if it's a pretty good way to hold your money. Them highwaymen wouldn't have much use for a policy, would they? I'm a pretty old man, but I guess you can fix me up something in the association for about ten thousand. Make it out to Tode Allen's kid. He's all I care for."

"Fix you out?" thundered the voluble Whopple. "Why, sir, I can fix you out easy with our special bond policy. Greatest thing in the land. Greatest and most effective method ever devised under the stars and stripes to aid humanity and build up—"

And on rolled the wordy Whopple, painting picture after picture of glories greater than dreams, while Jonas sat listening, forgetting that he had any convictions.

THE PASSENGER'S REPLY.

STOGGS is a very sociable man. He likes to talk with any person with whom he happens to be traveling. He made a trip up the Little Miami Railroad the other day, and found a seat alongside of a solemn-looking man who kept his gaze out of the window. Stoggs tried to catch his eye so as to open a conversation with him, but he didn't succeed

Stoggs offered the man his paper. The man shook his head without looking around. The conductor came along, and Stoggs said to himself, "Surely he must look around now," but he didn't

A man in front handed out two tickets and pointed silently to Stoggs's companion. Stoggs began to grow uneasy. It was the longest time he had ever been in a stranger's company without finding out something about him—where he was pointing for, at least.

At length, the brakeman came with some water, and the man turned around to get some. Stoggs availed himself of the opportunity to say:

"Going far east as New York?"

"No," growled the man

Stoggs waited until the stranger had quaffed a pretty liberal quaff, when he remarked.

"New York is a dull place at this time of year, anyhow. Mebbe you're striking for Philadelphia to see whether the old town's changed any since the exposition."

The surly man gave an impatient shake of his head

"Perhaps Cleveland's your destination?" put in Stoggs, not at all disconcerted.

"No," the man growled.

"Can't be you're going this roundabout way to Chicago?"

To this the stranger didn't offer a reply of any kind. Then Stoggs rose up and twisted around a little, fronting the stranger, and said:

"I s'pose you've no objection to telling where you are going?"

"Hang it!" cried the man, "I'm going up for seven years!"

Then the deputy sheriff in front told Stoggs that he'd rather not have folks talking to his prisoners, and Stoggs hadn't anything further to say.

"HE JUST YEARNED FOR BLOOD-SPILLIN'."

Ten Thousand Miles by Rail.

BY GILSON WILLETS,
Special Traveling Correspondent of "The Railroad Man's Magazine."

No. 11.—IN THE SUNFLOWER STATE.

How a Kansas Bad Man Was Put Out of Commission—What the Law Demands—The Breckenridge Family—The Bronco Buster—A Mad Race with a Cyclone.

"YES, son, the first time I put my lamps on 'Double-L Eck' Turner was about third-drink time, P.M., while he was pasturin' on the bo'd-walk in front of a nose-paint wickeyup in Dodge City." The speaker was an old ranchman from Texas, whom I had met at the station in Kansas City while waiting for the Rock Island's Golden State Limited to pull out for the southwestern country.

The aged "rough-neck," as he called himself, had delivered a train-load of cattle in Kansas City, and was now waiting for a Santa Fe train to take him to Dodge City. Having spoken of Dodge City, he began telling of the deeds of bad men in that town in the old days, finally mentioning "Double-L Eck" Turner.

"I knew that Eck got the sign and signal smoke of his name," he continued, "from the 'Double-L' which was the brand of the Leonard and Loughrain Ranch, for which

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Eck Turner was a rider. And I had listened when it was said that Eck was one of the worst men in Kansas.

"But that's whatever.

"When I first put my lamps on Eck on said bo'd-walk on the Main Street of Dodge he was some dangerous to look at—specially when looked at by them tourists that were then infestin' Dodge, owin' to the persistence of Santa Fe trains in bringin' 'em into Dodge's midst.

"Eck's dislike for tourists was mortal in general. And when he saw one ridin' a hoss he just nacherally yearned for blood-spillin'.

"Well, son, in a minute, or prior thereto, Eck spies a party on a hoss comin' down Main Street. It was a party that Eck mistook for another of them tourists. The hossman I'm aloodin' to weren't no tourist at all, though he was branded like one. His clothes looked like the effete East, and he wore a cap in lieu of the proper sombrero of the West.

"And, over and above all, he rode his hoss at a trot.

"Yes, son, he trotted. And whenever Eck Turner saw a man trot in *that* country, where the pervadin' fashion was nothin' but the *lope*, he choked with wrath.

"So, now, when that hossman that had the look of a tourist trotted into Eck's sight, risin' in his stirrups with the motion of said hoss, Eck cries to the parties standin' nigh on the bo'd-walk, incloodin' me and my pardner, Alec Michlin:

"'D'ye see the daylight between that feller and his saddle? Seein' daylight that-away always does make me wish the rider was Injin or hostile—so that I might use him as a target.'

"'That there ain't no tourist' one of the parties on the bo'd-walk allowed. 'He's the Santa Fe's new engineer of construction, who has recent pitched camp in our midst while executin' orders as to buildin' these yere new bridges both sides of Dodge.'

"'All the same, sons,' Eck says, after the

"IT'S A GREAT PITY WE'RE OBLEEGED TO TOLERATE A BRAND LIKE YOURS ON THIS YERE RANGE."

hossman had rode past us, 'if ever I see him trottin' through this yere Main Street again I allow I'll send a bullet between him and his saddle, just for to pass the time.'

"Well, son, I might as well let you savvy right now that it was that said Santa Fe construction engineer that was destinated to put Eck Turner out of commission, though deeds miscellaneous was to be performed by said Eck prior thereto, which the same I'll recite so's you'll learn that Eck's punishment was deserved good and plenty.

"Early that evenin' me and my pardner, Alec Michlin, entered the nose-paint wickeyup, havin' its front on the bo'd-walk; and there we again met this yere Double-L Eck Turner. He was now in the act of chewing his mane and tryin' evident to stampede the barkeep, which the same jawfest was all of and concernin' pay for the drinks.

"Says I then to my pardner, Alec Michlin, whisperin':

"'There's going to be a slam-up spread-eagle of a time round in yere in a minute or prior thereto. Ease up both your guns.'

"Eck was sure enough blood-hungry, which he showed by the way he was pesterin' that barkeep and pervadin' round general on the premises.

"It looked like the big ready was due, when sudden my pardner, Alec Michlin, steps up to Eck and says:

"'Pardner, I'm just in from the round-up myself and with the dough. Whereas therefore I beg permission for to ask all the men here present to make it unanimous in our midst that I be allowed to make this occasion well and frisky by settlin' the bar keep's claim against you.'

"Whatever did Eck answer? Well, son, Eck was old enough to know better—seein' that there was some thirty wrinkles on his horns—yet he reneges, sayin':

"'Eck Turner, stranger, ain't feedin' and beddin' down in your pasture a whole lot, and he'd like to know therefore why-all he should let you scratch his nose-paint account off the slate?'

"'Here's why-all,' says Michlin, plenty prompt, shoving one of his guns under Eck's nose with one hand and passing the barkeep the yellow coin with the other.

"Well, son, Eck was for continuing his renege, even so. He began to rap his horns around a whole lot and was for makin' the big noise when Michlin says furthermore:

"'If you feel that you've pitched camp in my society by mistake, and don't love the outfit, you better just vamose; 'cause this reservation is likely to get some malarious for you if you're hankerin' for anything that ain't peaceful a whole lot. Otherwise, howsomever, you've got the invite from me to front up at this yere bar and observe fourth drink-time proper.'

"Now, son, Eck, bein' a bad man, was some coward. The sudden bushwhackin' on the nigh side of him by my pardner, Michlin, made Eck clear his valves and upspeak without further frills, sayin':

"'The drop's on me, stranger, that's some gauzy. I allow I ain't got no objection to frontin' up at this yere bar with you a whole lot instanter.'

"'The bridle's clean plum off to you, pardner,' now says Michlin to Eck, puttin' his gun back in the front of his chaps. 'Riot right along up yere to the bar,' he continued. 'Barkeep, shove over the nose-paint to the Double-L outfit, and let him wet his valves till he's roped by the treemers—all on *me*.'

"Eck plenty prompt got free with the nose-paint, finished the bottle, and then allowed he'd go get his chaps under a table in the restaurant across the street. The said restaurant was kept by an opium slave named China Jim. Eck allowed he'd go over and order a suey with chopsticks; and forthwith he evacuates our society.

"He hadn't cut us out more'n a few minutes, when sudden we heard shots out in Main Street. Naturally, we stampeded out onto the bo'd-walk to see what-all the pistol practise was for.

"And what we saw was Double-L Eck goin' down Main Street shootin' out all the electric lights.

"'What-all is he mussin' round that-away for?'

"My pardner, Michlin, asks that of the parties from the saloon that had been enjoyin' his entertainment a whole lot.

"'Reckon,' the parties answered, 'that it's another of Eck's demonstrates of his dislike for things. I bet the drinks that he's took a dislike to the sputterin' noise made by those lights. Bet that's why he's now shootin' the carbons like you see him.'

"Alec Michlin and the parties from the saloon then stepped over to China Jim's to ask questions. The opium slave told 'em that Eck had come in and ordered suey, and while waiting cried, sudden:

"'Whatever do you allow them lights is

makin' them war-cries about? Reckon there ain't no safety in their midst. I'll just go out and put a stop to those war-cries, China boy, while you put the big ready onto the table.'

"Yes, son, that's how three whole pasture-lots in Dodge got put into darkness that night by pistol practise performed by Double-L Eck.

"Next mornin' Eck, with the bridle still plum off, was again riotin' round on Main Street. He was cavortin' along the bo'd-walk with Michlin and the parties from the drink-house, when sudden a minister rises up out of the earth, wearin' a plug hat. Eck puts his lamps on that fellow plenty prompt and then announces his dislike of the minister's head-piece.

"Says he, mussin' with his gun:

"'That man is wearin' a plug that's a inch higher than the pervadin' fashion accordin' to Fifth Avenoo. I reckon I'll take that inch off that plug just to put the sky-pilot into fashion.'

"Forthwith, Eck fired. The plug fell from the divine's head onto the bo'd-walk of Main Street, Dodge.

"Say, whatever do you think the divine did? Think he turned the other cheek? No, son, he walked right up to Eck, and says to him in words to this effect:

"'It's a great pity that we are obleeged to tolerate a brand like yours on this yere range. It's gauzy that you framed it up sure to get a hoss on me. If you don't take your brand off this range instanter, you'll remain illegal, and the city marshal will be ropin' at you till you're herded in the corral with hobbles onto all four of your legs.'

"And after upspeakin' thus, the divine —son, he was a brave, or I'm a Mexican!— kicks his shot-up plug to the very feet of the 'stonished Eck Turner; then he turns his back fearless and proceeds down street like he was paradin' to music of the dead march.

"And that, son, is the way bad man Eck Turner got cowed twice in twenty-four hours. He knowed very well that for him to make a move of his hand toward his gun in the presence of us-all, as that warlike divine marched down street, would have meant sure the shinin' gates of pearl and gold for Eck Turner.

"And now lemme tell you what happened to Eck on that memorial day when he chanced to cast his lamps on a party on a hoss.

"It was that same party that had passed on the afternoon previous—the Santa Fe engineer. He was again passin' on the trot, which made the whites of Eck's eyes go bloodshot. Eck pulls one of his guns and cries to the parties standin' nigh:

"'I said I'd do it just for to pass the time. Well, sons, I allow I can put a bullet through that streak of daylight between the man and the saddle, at about his third rise in the saddle from now.'

"As he spoke, Eck took aim careful—and fired. The bullet, miraculous, sped true through the streak of daylight and smithereened the sign readin' 'China Jim,' over the opium slave's place down street diagonal.

"Eck was now lookin' for to be rubbed down with admiration, but he changed his mind somewhat sudden. He saw the hossman turn leisurely and come ridin' at a walk toward where he and the witnesses were standin'.

"The hossman got so near that Eck and his parties could see the whites of his eyes. Then, sudden, the hossman, in a move like one streak of greased lightning, drew and fired at Eck, putting a bullet through the shoulder of his gun-arm.

"The hossman's next shot bored a tunnel through Eck's other shoulder. Then he put away his gun, and addressed the crowd, most of whom was bending over Eck where he had fallen.

"'Gents,' says the hossman, 'if I'm wanted for this, the city marshal will find me in a tent beside the Santa Fe tracks just outside the city.'

"With that he wheeled his hoss and started away—at a trot. And he trotted out of sight, too, before one of them witnesses upspoke to say:

"'If that man's a tenderfoot, I'm one myself.'

"'Who-all is he?' asked another of the witnesses.

"And say, son, after they had carried Eck into the saloon, one of the witnesses went to fetch the doctor, while the rest of the witnesses went skirmishin' and bush-whackin' round Dodge, garnerin' knowledge of and concernin' the trotter. Finally they were again herded in the saloon, whisperin' among themselves, which the same whisperin's were inclusive of this, to wit:

"'And he's some recent out of Harvard; and he's a relationship of General Dodge; and he has fronted up against Injins and

hostiles, by whom he's called "Wind-in-the-Face," cause he never turned his back on nothin', not even a cyclone; and his father's some honorable in the big teepee in Washington; and he's a civil engineer in charge of the work of puttin' up all the Santa Fe's new bridges in Kansas; and his name's Samyule Dodge.'

"Eck, soon's he could move off the saloon reservation without utterin' 'Ouch!' every second, moved out of Kansas all the way to Frisco, where he opened a sailors' bo'din'-house, and was garnered into the life everlastin' while in in the act of makin' his usual monotonous win at poker."

Taking a Legal Rest.

The Rock Island's Golden State Limited was running into Topeka, Kansas, when a gray-haired knight of the grip said:

"Ever travel local in Kansas?"

"Yes, on the limited."

"Oh, that's too easy. Travel on these fine through trains is all right, because they attend strictly to the business of going through Kansas to another State. But to meander round Kansas on a local — say, that's going some.

"Let me tell you of an experience of mine:

"The witching hour was approaching as my train crawled up through eastern Kansas toward the Nebraska line; and Marysville was still thirteen miles away. I prayed—yes, I really offered up fervid prayer—that the train would reach Marysville before the hands of my watch met at twelve. Should midnight find the train still on the prairie outside of Marysville, I would find myself in a predicament in which I had often been before, and which I dreaded.

"'Can we make it?' I asked Conductor Bainton, my voice full of deep anxiety.

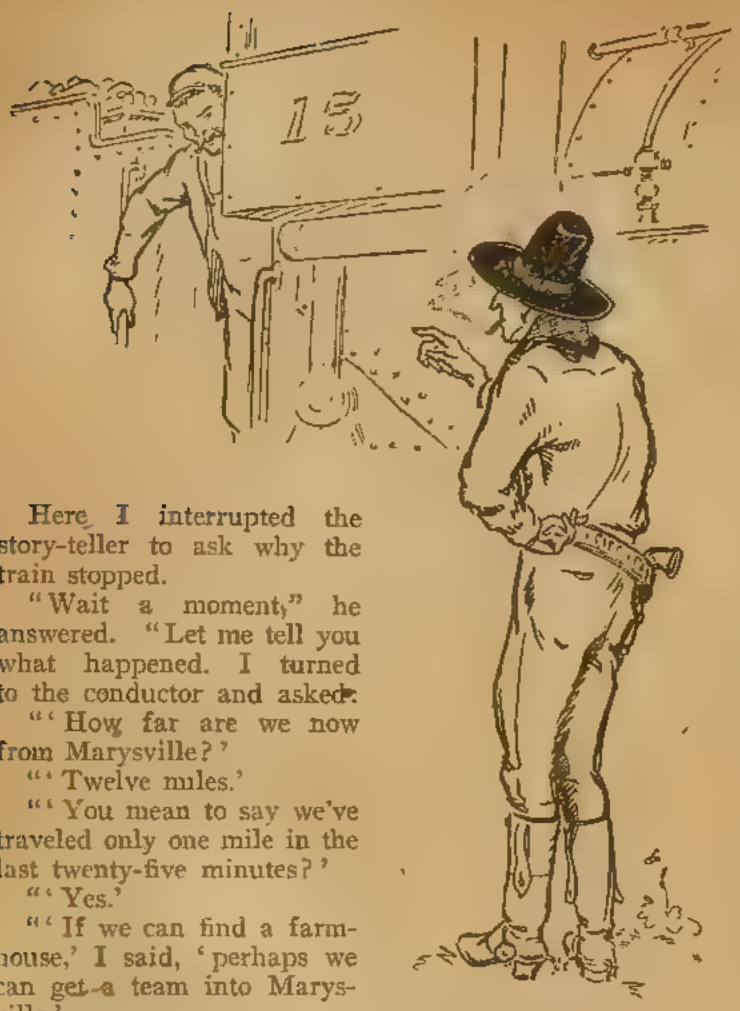
"'Looks pretty blue,' he answered. 'It's eleven thurty-five now, and between here and Marysville we've got a lot of way freight to unload.'

"The train was a mixed passenger and freight on the Lincoln branch of the Union Pacific—with one day coach for the passengers, of which there were six, including myself and a rosy-cheeked girl who told us she was tired of working as 'hired girl' on a farm, and was on her way to town to go take a job in a store. The common destination of all six of us was Marysville. As the minutes passed, each of us prayed in his own way that some miracle would happen to enable the train to reach town before midnight.

"ONLY TO FIND THE TAIL-LIGHTS OF THE WEST-BOUND FREIGHT DISAPPEARING ROUND A CURVE."

"We stopped, put off some freight, then crawled on again till Conductor Bainton came into our car with his watch in his hand and looking mighty serious.

"'Twelve o'clock,' he said. 'It's all over. Make yourselves as comfortable as you can the rest of the night. If a train happens to come along any time before eight to-morrow morning, it will pick us up and carry us into Marysville. If not, we will lay on the siding onto which we are now pulling for the rest of the night.'"



"IS THIS ENGINE AS EASY TO MASTER AS A WILD CAYUSE?"

Here I interrupted the story-teller to ask why the train stopped.

"Wait a moment," he answered. "Let me tell you what happened. I turned to the conductor and asked:

"'How far are we now from Marysville?'

"'Twelve miles.'

"'You mean to say we've traveled only one mile in the last twenty-five minutes?'

"'Yes.'

"'If we can find a farmhouse,' I said, 'perhaps we can get a team into Marysville.'

"'Come outside,' said the conductor.

"We all piled out on the prairie, and then the conductor said:

"'Do you see anything that looks like a human habitation?'

"We looked in every direction in search of a light advertising the presence of a farmhouse—all in vain."

Again I interrupted the old traveler to ask why the train did not go on.

"Just a moment, my boy," he replied. "Let me tell you what we did then. We six passengers returned to the day coach and made a bluff at sleeping, each of us stretching out on two seats. The Sir Walter Raleigh aboard threw his overcoat over the shivering form of the rosy-cheeked girl of the Sunflower State.

"Meantime, the train-crew—every man, from engineer to rear brakeman—went regularly and comfortably to bed in the caboose, and, doubtless, all slept like babes until eight o'clock the next morning."

For the third time I interrupted with the query as to why the train stood still.

"Wait a minute," the old traveler answered. "Let me tell you the story. At daylight — about five o'clock—I awoke the passengers, saying:

"'Friends, I see a big smoke over yonder. That means a human habitation, and perhaps a horse and wagon. We all want to do a long day's work in Marysville. If you wish to get there before noon, come with me.'

"Out of the train we filed, and t r u d g e d across the prairie toward the big smoke, and found a farmhouse. We chipped in then—all save the girl — and raised sufficient money to pay the farmer for driving us into Marysville. We arrived there before eight o'clock; or, in other words, while our train was still standing on the siding, twelve miles away. And, to tell you the sequel, the train did not pull into Marysville till noon.

"Well, that's local railroading in Kansas. What do you think of it?"

"I'm still waiting," I answered, "for you to tell me why the train did not proceed to Marysville."

"The law, my boy. Trainmen in this State are protected by law against having to work more than sixteen hours at a stretch. Now, that train-crew had been on duty since eight o'clock in the morning. When midnight came, they had been working sixteen hours. And the law says that a train-crew, after working sixteen hours, must rest at least eight hours. That's why the train dared not move off that siding till eight in the morning."

Presence of Mind.

The Breckenridge family, consisting of the "grand old man" and two clever daughters, held the distinction of being the only family in Kansas having all of its members

employed simultaneously by one railroad as telegraphers.

This is how the two girls were shifted from night duty to day duty:

When Nora Breckenridge, night operator, came on duty one evening at the Rock Island Station at Arlington, Kansas, a howling north wind shook the frail building. The first thing Nora did was to call up her father, who was day operator at Langdon, the next station west.

"You better go home at once, father," were the words Nora sent over the wire. "There's going to be a gale to-night."

Just then one of the Rock Island's night operators at Kansas City cut in to ask:

"How's father?"

It was Nora's sister, Kate.

"Father hasn't slept well for several nights," Nora answered. "He worries about our being on night-work. Imagines it impairs our health, and says the railroad must give us day jobs."

"Tell him to go to bed and forget it," was the advice of the elder daughter, flashed over the wire from Kansas City.

Nora immediately called up her father and told him what her sister had said—"Forget it."

"I will go to bed now," answered Mr. Breckenridge; "but, all the same, I mean to make the Rock Island give my two girls day turns."

On the night in question, three hours after her chat with her sister in Kansas City and with her father at Langdon, the wind sweeping past Nora's station at Arlington had increased to a gale. It was now eleven o'clock. Shrieking and whistling and traveling at almost cyclonic pace, gusts from the north threatened to tear the station building from its foundation. Nora, quite unafraid, peered through her rattling window and watched a west-bound freight roll by.

Just then, too, her sounder began clicking, and, to her consternation, Nora heard the despatcher order her to flag the west-bound freight and hold it at her station until the east-bound freight, which had just cleared from Turon, two stations away, had passed.

Nora leaped to the door and out into the gale of wind—only to find the tail-lights of the west-bound freight disappearing round a curve.

Then back to her key she bounded, and called up Langdon, between her own depot and Turon. Langdon was not a night office, but Nora called frantically, in the hope that, after all, her father had not gone home to "forget it."

No answer came. Nora abandoned hope of having the freight flagged and sent back from there

The excited girl then turned to the telephone and called up her father's house in Langdon. Persistent ringing, however, failed to arouse Mr. Breckenridge. It was only too plain that he had gone to bed and "forgotten it."

Nora hung up, and began pacing the floor in anguish. Bringing her fist down into the palm of her hand, she murmured:

"Those trains must not meet. Yet, how can I avert it?"

After a moment's thought, the resourceful operator hit upon a plan. Out into the gale and up the road she rushed toward the central telephone office. As she had not stopped for hat or wrap, the wind tore the hairpins from her hair, and, as she said afterward, "the wind nearly blew my hair off, too."

Rounding into the presence of the night "hello girl," Nora hurriedly explained the situation; then asked:

"Who can we call up between here and Langdon? It must be some one living close to the railroad track."

The "hello girl" ran her finger down the list of subscribers.

"Mr. Spence!" she cried. "There's the man! He's a farmer living four miles down, close to the track."

She began calling Farmer Spence, persisting till some one answered.

Nora herself then cried into the hello girl's mouthpiece:

"Hallo, Mr. Spence! Get a lantern, wrap a red cloth around it, go out to the railroad track, and wait there till a west-bound freight pulls into sight! Then wave your lantern. When the train stops, tell the engineer to back to Arlington at full speed. Don't waste a second, Mr. Spence."

Fifteen minutes later, Nora, standing on her station platform braving the gale, gave a shout of joy as she beheld the tail-lights of the west-bound freight as the train backed round the curve. When the caboose reached the station, Nora shouted to Conductor Booth, who stood on the rear platform:

"Onto the siding, quick! The east-bound freight is due here now."

A few minutes later, the east-bound

freight rumbled past Arlington station. Conductor Booth, of the west-bound, entered that station and said to Nora:

"So you let us get by without flagging us, did you?"

"I'm not saying who let you get by, but it was not I," Nora answered.

"Ah! I see. Somebody in the despatcher's office at Hutchinson sent you the order too late. Was that it?"

"Yes."

"Well, Miss Breckenridge, some one will get demoted and some one promoted for this. And the one to be demoted won't be you."

One evening in the following week, when Nora came on duty, her sister in Kansas City called her up, saying:

"I hear you are to be given a day turn. I suppose it is your reward for saving the freights from meeting on the night of the gale. Tell father."

Nora called up Langdon station and told her father what she had just heard from her sister.

"Reward!" clicked Mr. Breckenridge. "Reward has nothing to do with it! You've been given a day job because I informed the Rock Island that the whole Breckenridge family would walk out unless you girls were given daylight work. They've fixed you up first, Nora. Kate will get a day turn, too, this week. The railroad can't do without the Breckenridge family, and so they're making peace with us at any price."

Tried to "Bust" a Locomotive.

When Engineer Cy Crosman brought his freight-train to a standstill in the Santa Fe yard at Wichita, Kansas, he saw a tall young man looking up into the cab wistfully.

The tall man wore cow-puncher's boots and spurs, also a cow-puncher's sombrero.

"I say, friend," the wistful-eyed said, addressing the engineer, "is this here engine as easy to master as a wild cayuse?"

"Surest thing you know," replied Crosman, who, having received a brakeman's signal, now opened the throttle and pulled the engine away from the train and over to another track. When he again stopped, there stood the tall one, peering wistfully into the cab, as before. For the tall one had run along beside the engine, after the uncoupling from the train.

"What you going to do now?" the tall one asked.

"Load chuck at the hashery," answered the engineer.

"My name's Herb West," said the wistful-eyed man. "I'm from Texas. Occupation, bronco-buster."

"Come over to the hash-joint and tell me all about it," said Crosman.

"I've already loaded, thanks. I'll stay here. You say a big engine like this is as easy to bust as a cayuse, do you? Well, I'd like to try it just once."

"Join the brotherhood, get a card, and then try it all you like," said Crosman.

The engineer and his fireman hurried over to the hashery, where they found the other members of the crew, two brakemen and a conductor.

While all five were consuming the pie that concluded the supper, one of the brakemen suddenly jumped up and sprang to the door, crying:

"Some one's moving your engine, Cy! Why," he added, "It's that chap wearing the boots and spurs."

"Surest thing you know," responded Cy Crosman, who had also left the table, and was now looking out of the window. "He's running away with my engine. The nerve of him! Come on, you fellows! Let's take old Doc Sherman's engine and chase this locomotive stealer."

Men were running excitedly through the freight-yard now, shouting the news that some one was running off with Cy Crosman's engine. Like wildfire the news spread, till the operators at the passenger-station heard it and at once wired all stations within ten miles northward—the direction in which the cow-puncher was running the stolen engine.

Five miles to the north, the Wichita operator found a passenger-train. He ordered it side-tracked. Ten miles north, at Center Valley, he found a freight-train. He ordered it side-tracked.

Meantime, Cy Crosman and his fireman, with the two brakemen and the conductor, boarded Doc Sherman's engine and started in pursuit. As he flew through the yard, Crosman leaned out of his cab window and yelled to a yardman:

"Go tell the operator at the station to wire up to Center Valley for the operator there to open the derail-switch. There!" he added, turning to the four men in the cab, "if we don't catch him this side of Center Valley, he'll be ditched when he hits that derail."

Out of the yard the pursuing engine sped and soon came within sight of the stolen engine, a mile ahead

"He said he'd like to try to bust an engine just once," Crosman shouted. "But, hang it! I don't want him to bust my engine And he will bust it all right if he hits that derail-switch. We've simply got to overtake him before he gets to Center Valley."

"But how you going to stop him?" shouted the conductor, as the locomotive tore on.

"Watch me," answered Crosman. "I'll stop him! Surest thing you know!"

Mile after mile the chase continued, the pursuing engine gradually drawing nearer and nearer the fugitive. When nine miles had been run, Crosman's engine was within a hundred feet of the runaway.

"Now," he yelled, "you fellows get ready to climb over the tender of that engine the moment I overtake him."

Two minutes later, the two engines came together, Crosman's machine now literally pushing the fugitive ahead just as they tore into Center Valley.

"Now!" shouted the engineer. "You two brakemen climb over that tender like you were hold up men and jump down into the cab and overpower that cow-puncher! Hurry! The derail switch is just ahead."

Leaping like cats onto the tender of the fugitive engine, the two brakemen then clambered over the coal and out of Crosman's sight. Next second, the whistle of the forward engine signaled to come to a stop.

An hour later, both engines backed into the freight-yard at Wichita—with Herb West, bronco-buster, of Texas, a prisoner.

"AND A FEW OTHER THINGS BESIDES, I GUESS."

"What ailed you, anyhow?" asked Crosman, as he handed the prisoner to a constable. "Drunk?"

"Sober as a judge," replied the Texan.

"All the worse for you," retorted Crosman. "You'll spend a few months in jail for stealing my engine."

"It's worth it," said the tall one. "I wanted to bust a locomotive—just for the fun of telling the boys at home all about it Simply couldn't resist the chance. Gee! but I sure have got a hoss on the boys down on the ranch."

Train vs. Cyclone.

A Burlington passenger-train, with Nat Joyce at the throttle, was rolling westward on the run between Lincoln and Plattsmouth, Nebraska. At the particular moment when Engineer Joyce happened to look backward at the sky, his train was

sauntering at the rate of about fifteen miles an hour.

"We must hump ourselves!" he cried.

He spoke somewhat excitedly, and pushed over the throttle so that the train gave a sudden leap forward.

"What's ailin' you?" asked the fireman.

"How fast do you suppose that cyclone is traveling?" the engineer asked, nodding his head backward and indicating that the fireman was to take a look.

"It sure enough is a cyclone," said the fireman, after a hasty glance at the black sky.

The train leaped on, gradually attaining a speed of thirty miles, then forty, then fifty.

"'Tain't enough!" shouted the engineer, looking backward. "It's gaining on us! Give her more fuel!"

The fireman thrust coal into the fire-box at the rate of almost sixty shovelfuls a minute. The train rocked and careened like a ship on a stormy sea. Five miles were covered across the Nebraska prairie—five miles from the point at which the race with the cyclone had begun.

"And we've five miles more to go before we reach that sharp curve to the southward, just this side of Plattsmouth!" cried Joyce. "Unless we make that curve in time, we're goners."

Faster and faster the fireman heaved coal; greater and greater grew the speed of the train; till now, in the sixth mile of the race, they were speeding at the rate of nearly sixty an hour.

"'Tain't enough," still insisted Joyce. "Remember that the curve is the only thing that can save us. Look! The tornado is gaining on us."

By the time the seventh mile had been covered the train was going at a pace a little in excess of sixty miles; and the cyclone had drawn so close that one of the advance heralds of wind snatched Joyce's cap and carried it away. The day had become almost as dark as night.

"We've got to make that curve within two minutes!" yelled Joyce. "Fire up some more!"

The fireman, working like a Trojan and sweating like a Turkish-bath rubber, yelled in answer:

"If you want her to have more coal, come feed her yourself, 'cause I'm doing my limit!"

In the eighth mile of the race the cyclone seemed to be less than two miles behind the train. In the ninth mile, Engineer Joyce looked back and saw a farmhouse collapse like a thing of cards.

In the tenth mile the train was flying at the rate of seventy miles an hour. Then came the curve. Joyce wondered whether he dared sweep around that curve at such speed.

"It's the curve at this pace, or get blown from the track," he told himself.

For now the pursuing cyclone was all but upon them.

Round the curve the train swung, as Joyce said afterward, "on its side," then on down the track southward, all this in the nick of time.

Joyce and the fireman, glancing back, saw something sail through the air over the curve. It was the roof of the near-by section-house.

A number of the terror-stricken passengers in the coaches behind had been kneeling in prayer, led by a minister from Lincoln. All during the last half of the ten-mile race they knelt thus, some of them believing that death was upon them.

Then the train stopped.

Joyce, seeing that the danger was over, pulled up to discover just what tendons and muscles had been strained in the mad race.

While Nat Joyce thus critically examined the iron horse of which he was now so proud, the minister from Lincoln came to the engineer's side and, with beaming face, said: "It was a most wondrous example of the efficacy of prayer."

"Efficacy!" answered Nat Joyce, with a very respectful grunt, "and a few other things besides, I guess."

"Bill," he suddenly added, turning to the panting fireman who had thrown himself on a bed of dandelions beside the track, "I thought you was a human derrick. But you're not. Our friend, the parson, says you're an efficacy."

As the spike said to the tie, things that go against the grain often turn loose ones into stickers.—Philosophy of the Section Foreman.

VANISHING RAILROADERS.

BY JOHN W. SAUNDERS.

The Thousand-and-One Nights' Tales of the Early Days of Railroading When Many Queer Things Happened.

CHAPTER XI.

The Stranger in the Cab.

"IT is ten years ago since that little affair happened near Knowling's Bridge. I was running No. 20. The road was in splendid condition; my engine had just come out of the shop, thoroughly repaired, and, altogether, everything looked pleasant.

"It was on a Sunday morning. I had backed down from the roundhouse to the station at Valley Junction, coupled on to my train, and was waiting for the passengers to finish their breakfast.

"My wife had brought the children down to the depot, as was her custom every Sunday morning, and I was playing with them on the platform while the passengers came hurrying out, one by one. I was just giving one of my youngsters a parting hug when, all of a sudden, I saw a strange man jump stealthily but quickly on the engine and pull the throttle!

"My fireman was not on the engine at the time.

"The wheels creaked, the train moved, and the loiterers on the platform jumped hurriedly on board. Quick as a flash, I placed the child in its mother's arms. In another instant I was face to face with the intruder.

"A single look told me that he meant mischief. He was a man of herculean stature, bareheaded, and scantily attired, with glaring eyes and long hair. His sleeves were rolled up above his elbows, displaying brawny, muscular arms.

"With a wild, excited laugh, he pulled the bell-rope violently, apparently taking but little notice of my presence.

"'What are you doing? Are you crazy?' I cried, as I grappled with him.

"He looked at me with that same leer. Pushing me back as if I were a feather, he said abstractedly:

"'Don't annoy me now, I beg of you; I'm busy.'

"I summoned all my strength and rushed at him again. By this time the train was well in motion. Its speed was momentarily increasing.

"He let go of the bell-rope. As I seized him by the arms, he grasped mine in turn. Holding me in a viselike grip, he looked me full in the face.

"'Didn't I tell you that I didn't wish to be annoyed?'

"I glanced keenly into his face as he spoke. For the first time, the horrible truth broke in upon me—the man was crazy.

"A shudder ran through my veins. I realized the dreadful danger before me. I thought of my little children, whose kisses were yet warm upon my face, and of that long train behind us, full of passengers so little suspecting their peril.

"Quietly seating me on the fireman's seat, he loosened his hold and returned to his post, saying:

"'There, now! I don't want to be bothered!'

"By this time we were dashing along at a pretty rapid rate, and I could see that he knew how to handle an engine.

"I jumped to my feet. A third time he leaned forward to reach the throttle-lever.

"'Stop her!' I exclaimed. 'Who are you?'

"'Me?' he answered, with a quiet

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laugh. 'I'm a practical engineer, working in the interests of science. I've studied for years, and now I want to make an experiment! Don't interrupt me!'

"He gave me another look full of wild determination, and then burst into hilarious laughter.

"'Good!' he cried. 'But she'll do better by and by! Now—she flies!'

"He gave the throttle-lever another jerk; the engine shot ahead.

"For a moment I sank in utter despair To measure strength with such a man was suicidal. A struggle would only result in my destruction, and the probable destruction of the train and all on board.

"One possible chance of regaining control of the engine presented itself. I must draw him into conversation, and watch for my opportunity to gain advantage either of his credulity or his vanity sufficiently to induce him to give me his place.

"I scanned him closer than ever. He seemed to have entirely forgotten my presence; now jumping up, laughing, and clapping his hands; now letting more steam on; now looking eagerly out ahead, and murmuring: 'Better, better, better still!'

"My heart was thumping against my chest as I said:

"'You seem to understand your business pretty well. Been long at it?'

"He looked at me, looked away again, but did not answer.

"'I see you are a good, practical engineer, as you say,' I continued. 'How long have you been at the business?'

"'Years, I tell you' he answered. 'It was I who fitted out Pegasus, the winged steed!'

"'I wish I had your experience,' I said 'What a team we'd make in the cause of science, eh?'

"An expression of unspeakable delight illumined his face. He turned toward me and said:

"'Are you for science, too?'

"'Science, every inch of me!' I replied.

"'Give me your hand!' He shook mine with a fervor which sent a tingle to my very collar-bone. 'Hurrah for science! You're the man I've been searching for with a lantern these thousand years. You can help me; but,' and he leaned over and whispered in my ear so distinctly that I could hear every word above the racket, 'can you keep a secret?'

"'Certainly,' I replied.

"A creeping horror stole over me I felt his hot breath upon my face.

"'You swear you can?' he continued, looking inquiringly at me.

"'I swear!' I said desperately.

"'Because,' he hissed, 'if I thought you meant to betray me, I'd tear your tongue out!'

"'Never fear one man of science betraying another,' I answered with a sickly attempt at bravery. 'I'm your man!'

"'Well, then, mind what I say,' he continued, apparently reassured.

"He took from his pocket a bunch of soiled papers scrawled all over with lead-pencil marks.

"'Here's my secret, the result of five hundred years' hard study. To you, as a friend of science, I will tell it. But remember your promise!

"'Now, you see,' he went on to say, 'a tangent from a parabolic curve goes on to infinity,' and he held up one of the soiled scrawls before me, pointing out the marks upon it with his long, crawlike forefinger; 'and infinity is what? Do you know? No; but you shall. Do I know? Yes; and in the cause of science I am going to show you. Speed, in locomotion, tends toward infinity. Infinity is unknown. The higher the speed, consequently, the greater proximity to the unknown.

"'Down where I've been studying they wouldn't let me build my engine to make this experiment; so,' and here his voice fell to a horrid whisper again, 'I came away secretly the other night, and now—ha, ha, ha!—I've an engine of my own! Speed, speed, speed is what we want! By and by we'll be ready for the tangent; then infinity, and then our fortune is made forever!'

"I saw that hope was fast disappearing. His intention plainly was to put the engine to her highest speed and send us whizzing over an embankment at the first short curve. We had gone nine miles already, although only thirteen minutes had elapsed since we left Valley Junction. I nerved myself for a final effort.

"'Come,' said I, 'your secret is wonderful. Now that I know it, I will give you all my help to carry out your plan. But you have overlooked one important point. The tangent which will quickest bring us to what we are after must be directed from a point as near as possible to the base of the cone. That point we cannot discern, unless you, with your superior insight into

the principle, will take a position on the outside of the engine and give me the signal when to send her off!'

"The idea seemed to strike him.

"'Good!' he exclaimed, shaking my hand. 'Don't take your eyes off me!'

"'That I sha'n't,' I said fervently as he opened the window, and made a movement as if to step on the running-board.

"My heart beat with anticipation. Once outside, he would be at my mercy long enough for me to whistle down brakes, shut off steam, and reverse the engine.

"Suddenly he turned, slamming the window. Glaring at me like a demon, he hissed:

"'You've betrayed me! What did I tell you?'

"'Come, come,' I said, 'I haven't. Go ahead! See, there's the curve just ahead! Hurry, be quick, or the chance is gone!'

"'I say you've betrayed me, and I'm going to kill you. I heard you whisper my secret a moment ago!'

"He came toward me with frenzy and savage cruelty.

"'Now,' I thought, 'one last struggle for life or death!'

"Mustering all my force, I struck him with my clenched fist.

"He came at me viciously. I felt his long, bony hands in my hair. I staggered and fell backward. My head struck against something hard, my eyes grew dim, and I lay insensible.

"It was possibly half an hour before I regained consciousness. The first object that met my view in the distant landscape was the white steeple of a church. I was lying on my side, between the engine and tender, with my head half over the edge.

"Weak and exhausted from loss of blood, my eyes wandered to where the madman was still standing. I saw him with heightened wildness on his countenance, his long hair floating in the wind, glancing eagerly out ahead, his lips muttering incoherent and meaningless words. Now and then he would clap his hands in fiendish joy, then settle quietly down again to his sullen mutterings

"The rate of speed at which we were moving did not seem to have abated. It was evident that he had replenished the fire while I was lying unconscious. I feared every instant the crash that would send me, madman, engine, everything, whirling to perdition.

"As my faculties grew stronger, I began to realize the horror of my situation. What if he should discover my signs of returning life? He would throw me from the train or dash my brains out.

"Where was the conductor? Perhaps he had been left behind. The brakeman—could not some of them come to rescue me? Had not our wild speed, our neglect of the usual stoppages, told those on the train that something was certainly wrong?

"Suddenly I remembered that we were rapidly approaching Knowling's Bridge, which spanned the awful chasm through which the Arrow River leaps and plunges.

"In my pocket was a telegraphic order from the division superintendent, stating that the west-bound track on the bridge would that morning be taken up for repairs, and directing all trains to stop for the switch on approaching and cross on the east-bound track.

"The horror of the impending disaster welled before me. Should this maniac persist in his mad purpose only ten minutes longer—it would be the end.

"I heard a cry of wild joy from my companion. Gliding like lightning around a curve, the valley and the massive bridge were first disclosed to his view

"'Now, now!' he shouted. 'Here we are! At last! Science and infinity and all the unknown are mine forever!'

"I tried to move. A pang of agony shot through every nerve and muscle in my body. I sunk again in utter despair, closed my eyes and waited for death.

"*Crack! Crack!* A scream! A shout!

"I opened my eyes once more. The madman had fallen upon his knees. With the expression of a demon, his bared arms stretched above his head, his powerful form writhing, his eyes protruding from their sockets, and foam on his lips, he began to mutter something I could not understand. Then I noticed blood trickling down his breast.

"I saw the monster, weak and wounded as he was, turn and crawl upon his knees toward me.

"'Come! Come!' I screamed. By that time his clutches were upon my throat. I looked upward to the clear blue morning sky above us to feel my breath coming slower and slower.

"The coarse, talonlike grip relaxed of a sudden, the din grew less and less, and the welcome shriek of the whistle for down brakes sounded in my ears.

"I felt myself lifted like a child in two pairs of friendly arms. I heard sobs and shouts of joy and the movement of many feet around me.

"A voice whispered lovingly in my ear: 'Saved!'"

CHAPTER XII.

The Man in the Front Seat.

THE woman who sat by me was elderly, with a sharp but somewhat handsome face, worn and marked with time and trouble.

A man followed her into the car. He found a seat before us. In a short while he turned to my seat-mate.

"He is really your husband, you know, Mrs. Evans," he said in a low voice.

"He is not!" she replied with emphasis.

"I beg you not to be hasty," continued the man persuasively. "I do not pretend he did right in leaving you and his child for so many years without a word. His second marriage is more inexcusable yet; but this second Mrs. Evans has been worse treated than you have. If she will overlook her wrongs and permit him to leave her for you without making any trouble, it seems to me you may find it possible to forgive him for the sake of your boy."

"For the sake of my boy!" Mrs. Evans said passionately. "A great gift such a father would be! I tell you, Mr. Mayne, every drop of blood in my body flies into motion thinking of such cowardly meanness and terrible wrong. You may be perfectly sure that I will never even see him. This is my final answer."

The woman seemed to be doubly determined. I wondered at the man's hardihood in persisting further. Finally he turned still more in his seat, as if he had not decided to accept her words as final.

All this time the man who occupied the seat before me with Mr. Mayne was sitting close to the window with his hat over his eyes, apparently asleep. However, I clearly detected that he was listening.

Mr. Mayne and Mrs. Evans were both too absorbed to notice him.

"But, Mrs. Evans," began Mr. Mayne again, "your husband is very penitent, ready to make any promises you may require, and willing to submit to any conditions if you will only acknowledge him as your husband.

"Although he has showed lamentable weakness in neglecting to send for you, I believe he was never really base at heart or intentionally a scoundrel. He kept hoping his business affairs would brighten, and he was ashamed and discouraged about letting you know of his failures."

"Mr. Mayne, I have no husband. He was lost to me twenty-one years ago. I have no intention of seeing or hearing anything more about the creature who bears his name," said Mrs. Evans coldly.

We halted a moment as we neared the next station, and she passed into the next car. I never saw her again.

She was scarcely gone, when a voice came from the silent man.

"Mayne, are you going to let her go?" it said in wo and despair.

"I can do nothing with her, Evans. I told you so before. You have heard her talk for herself. Aren't you satisfied?"

"You won't desert me now, Mayne? I don't care so much for her, but I want my boy," said the voice pathetically.

"I can do nothing more for you. You hear what she says," he added.

"Then why did you tell me at the start she had left New York with my boy, and say you would intercede for me? I paid you because you declared that you knew my wife would return to me, and that, anyhow, I could get my boy!"

"Business is business," returned Mr. Mayne. "I must live as well as the next man, and you cannot say but the bargain was fairly made and the money fairly earned."

"I bought off my second wife to return to my first—as you suggested. You said it could easily be accomplished!"

"It is a pity about you, but I can do nothing more. I have fulfilled my promise."

The man seemed already too wretched to mind this cold-blooded thrust. He only crushed his hat lower on his forehead, and settled back in his seat the image of forsaken and hopeless desolation. So we whirled along past sleeping villages and over long reaches of open country.

Suddenly he jumped to his feet and grappled Mr. Mayne by the neck. Before that person was aware of what was happening, two powerful thumbs were being forced into his throat.

Before the other passengers were able to tear his antagonist from him, Mr. Mayne's life had ebbed away.

The train was stopped at the next station and the murderer was turned over to the police. All of the passengers were lined up in the station and asked if there were any in the number who could identify him.

A woman paled and pressed her hand to her heart. Before she fell in a faint she managed to shout:

"My husband!"

The woman was Mrs. Evans.

CHAPTER XIII.

The Mystery of the Key.

"DON'T fret, Mag, for the short time I shall be away," I said to my wife as I put on my gloves and coat.

"Couldn't you stay at home just this one night, Jim? Do you know I felt so lonely and strange last night when you were away, and to-night I can scarcely bear the thought of your being absent so long!"

She looked up to my face with an anxious gaze. Tears glistened in the corners of her sweet blue eyes.

"Why, you little goose," said I, kissing away the bright tokens of her earnestness, "why should you feel alarmed? I must go every night to see that everything is O.K. on the line. I shall be at home by seven at the latest. If you are really afraid to stay in the house alone, I will send my brother Tom to keep you company."

"No, don't do that; it would look foolish, and Tom would only laugh at me when he came. He does not understand me. I think no one understands me—except you, dear."

"Thank you, Mag. I think I understand you. There is nothing to fear. The whole village is ready to come at your call. Good-by—and don't fret."

I was off, but my wife lingered by the porch. So long as the house was in sight, I could look back and see her white dress shimmering ghostlike in the light which streamed through the open door.

I was telegraph superintendent of the X., Y. and Z. The trains were run entirely by telegraph. Our despatcher having been taken suddenly ill, we had put a skilful operator in his place, who sometimes yielded to a desire for drink.

I thought it best, therefore, to be near at hand in case anything should go wrong. I had been married but a few months, and was by no means reconciled to the necessity of leaving my wife home to pass the night in that "nasty old box," as Mag sometimes called my office.

A short ride brought me to my post. There was nothing extraordinary in the duty to which I had been called away, nor was it a new experience to me; but on that night my mind was filled with vague fears, for which I tried in vain to account.

The night was clear. There was a strange light in the northern sky. On entering the office, the night operator whom I had come to relieve was ready to depart.

"No use for two of us to-night," he said. "A foreign current has possession of the instruments, and not an office has 'called' for the last hour. Good night!"

When I was left alone, I found it was as he had said. The electric currents which are developed in the atmosphere during most meteorological changes had rendered the wires quite useless for the time. Seeing that my office was likely to be a sinecure, I drew my chair to the stove and, picking up a magazine, tried to interest myself in the story. Suddenly I was startled by the sharp, quick click of one of my sounders, as if some one was attempting to call me. With a shiver of alarm, I turned quickly to the adjustment, but soon perceived that the dot and dash had been sounded by a current of atmospheric electricity

Smiling at the nervousness which caused me to start at so ordinary an occurrence, I turned from my desk, and again sat down by the stove. But smile as I would, and reason as I might, I felt that I was fast succumbing to vague fears. Thinking that the atmosphere of the room, which seemed close and hot, might have something to do with my peculiar condition of mind, I flung open the door and stepped outside into the cool air.

As I crossed the threshold, the midnight express dashed by with a speed that shook every timber of the building, and disappeared into the tunnel at the summit.

I could hear it rumbling on. Then all was quiet again save for the peculiar sighing of the air through the telegraph wires.

I stood and listened to the strange, melancholy sound, now so faint as to be almost inaudible, then swelling like a wail.

As a general rule, I had a most profound disbelief in superstition, but, notwithstanding, I felt that I would have given a good deal to be transported just for one moment to my home to see if all was well there.

The express had passed, and it was not probable that any orders would be sent or received. I might telephone to Connors, my assistant, who lodged near by; but as I could give no good reason for going away, I resolved to stay there and get through the night as best I could.

I went inside again, and poked up the coals with rather more noise and vigor than was necessary. I lit my pipe. As the wreaths curled upward, I saw my wife's face, looking at me as tearfully as when I had left her.

Again one of the instruments clicked sharply, but, as before, with no intelligible sound. I leaned my elbows on the desk and, with head between my hands, watched the armature as a cat watches a mouse.

Again I was startled by the instrument's nervous clicking. This time it was louder and more urgent. In short, it seemed to be calling me home. I am utterly unable to tell in what manner the impression was produced, but it seemed as if there mingled with the metallic click the voice of one I knew.

The armature began to move more regularly now, and to make sounds that my practised ear understood.

Slowly came two dots, a space, and a dot, as if some novice were working the instrument, and then the word "C-o-m-e" was signaled.

No sooner had I read off the final "e" than, to my amazement and terror, I saw the key move as if touched by some invisible hand, and the signal "O.K" was made.

A cold thrill ran through me. Could I have been the subject of an optical delusion? I know that such was not the case, for I had plainly heard the sounder, and saw the armature move in obedience to the current that made the sound.

I could perceive now that another word was being slowly spelled.

I was so bewildered and terrified, that I failed to catch the sounds. I watched the lever intently. This time I read: "H-o m e."

I stood petrified with fear and amazement, half believing that I was in a dream. Could that be a message for me? If so, what hand had sent it?

The instrument sounded again. After a few uncertain movements, "Come home, come home," reached my practised ear with unerring distinctness.

I could remain at my post no longer. Come what might, I felt that I had no alternative but to obey.

I ran to the house where my assistant lived, roused the inmates, and told him that he must take my place immediately, as I had been called away suddenly.

Connors seemed somewhat surprised at my excited and startled manner. What he said or did I cannot recollect.

I rushed to the barn where a horse was stalled, and, noticing a saddle hanging on the wall, threw it on his back.

In another moment, I was dashing along the road in the direction of home. Although I urged my horse lustily, his pace was far too slow for my excited mind.

At length, breathless and panting, we clattered up the main street of the village in which I lived.

Suddenly a horse and rider appeared at the other end of the street. A hoarse voice uttered a loud cry of "Fire!"

At the same instant the church bell was rung violently. As if by magic, the village started into life, lights appeared in the houses, and a hundred windows were opened. I heard nervous voices cry from the windows, "Where?"

Checking my horse with a jerk, I listened for the reply.

CHAPTER XIV.

In a Dream.

MY worst fears were realized. It was my own home!

I choked down my agony, and pressing onward with redoubled speed, soon arrived at the scene of the fire.

When I reached home, smoke was issuing in thick, murky volumes from the windows, while fierce tongues of flame were leaping along the roof.

A crowd of men were hurrying confusedly hither and yon, trying to extinguish the flames.

"My wife!" I exclaimed as I rushed forward. "Where is she?"

"Heaven knows, sir!" said one of the men. "We have tried twice to reach her room! Each time we were driven back by the smoke and fire!"

I dashed into the house, and ran along the hall. The stairs, fortunately, were built of stone, but the woodwork on each side was blazing.

Before I had taken three steps, I fell

back, blinded, fainting, and half suffocated with smoke. Two men who had followed me caught me and tried to restrain me from endeavoring to ascend again.

"Don't attempt it," they said. "You will only lose your own life!"

"Let go, you cowards!" I cried.

With the strength of madness I dashed them aside. I rushed up-stairs, and succeeding in reaching the first landing in safety. The bedroom was at the rear on this floor. Groping my way through the smoke, I found the door.

To my horror, it was locked.

I dashed myself against it again and again, but it resisted all my efforts.

To return as I had come was impossible. The only hope of saving even my own life was to go forward. I kicked the door desperately until one of the panels gave in. I crept through the opening, but the smoke was so thick that I could distinguish nothing.

"Maggie, Maggie!" I shrieked.

She did not answer.

I groped around in the darkness until my foot struck something. Stretched on the floor, I found the apparently lifeless form of my wife.

I bent over her. She was still breathing. I carried her to the window, which I broke open. Men raised a ladder, and stronger arms than mine bore my wife to safety.

On the evening of the next day, I was thinking over these strange events. Maggie drew a little stool close beside me. I had not mentioned a word to anybody about the warning which I had so mysteriously received. When asked what caused me to return so opportunely, I made an evasive answer.

"Who would believe such a story?" thought I.

"Jim," said the soft, low voice of my wife, "if you had not come home—"

"Hush. Don't talk like that. I can't bear even to think of it," I replied.

She paused for a moment, then said:

"Jim, I had such a strange dream last night. You remember the evening you took me into the telegraph office and told me all about the batteries, and magnets, and electricity?"

"Perfectly."

"And do you remember how I wanted to send a message with my own hands, and you threw the instruments into what you called 'short circuit'?"

"Yes."

"You made me take hold of the key, and then you guided it while I sent a message to your brother, who was in the office at Stoughton, and the end of it was, 'Come home, come home!' which I repeated over and over until I could do it without your help?"

I turned quickly around. She was gazing intently at the fire, and did not perceive the startled look I gave her.

"Well," she continued, "last night I could not sleep when I first went to bed. When I did sleep, I dreamed I was in your office again. I had hurried there because I was afraid of something like a demon that was chasing me. I thought nobody could save me but you, and you were not there. I seized the key and wrote the words, 'Come home, come home!' as you had taught me.

"When you did not come, I felt the demon's hot breath on my cheek, as if it were just going to clutch me in its dreadful arms, and I screamed so loud that I awoke.

"The room was dark and filled with smoke. When I jumped up, I fainted."

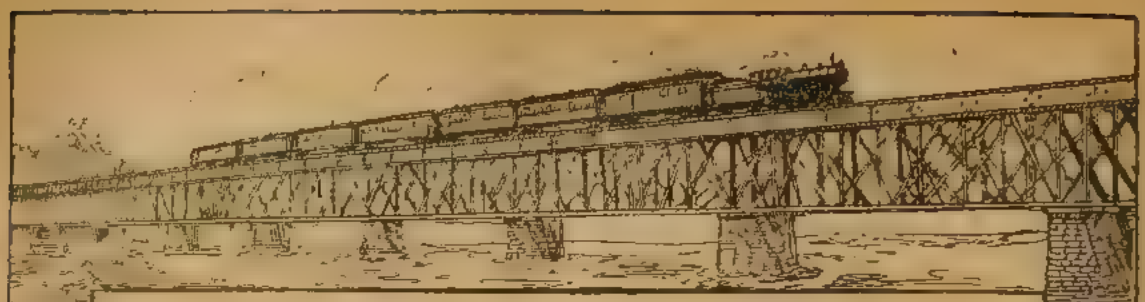
Just what made me rush to her that night, I cannot tell. Just what made the instrument click, "Come home," will always be a mystery.

As I have said, boys, I do not believe in superstition or spooks or anything supernatural. Railroad men are too practical, I am sure, to believe in such things. I believe that the instrument was clicking because it was affected by an electrical storm, and I only imagined it was sounding "Come home." At least, I will always say so, and claim nothing more. Imagination does some wonderful things at times.

(To be continued.)

Maybe your train's got right of track, but that doesn't mean that you can run the other fellow down. Hustle, but be considerate.

—Sayings of the Super.



The Railroad Man's Brain Teasers.

S. D ADKINS, Sierra Madre, California, wants the boys to try to solve this one

(23) Conductor Z. has orders to take out a full train of empties and distribute them at B, C, D, E, and F, and at each station to fill out with loads in exchange for the empties, each load to equal two empties. At B he set out one-half plus one-half car of his train and picked up half as many loads as he had empties in his train plus one-half car. At C he set out one-half plus one-half car of his empties and picked up one-half as many loads plus one-half car as he had empties in train. At D he set out one-half plus one-half car of his empties and picked up one-half plus one-half car of as many loads as he had empties. At E he set out one-half plus one-half car of his empties and picked up one-half plus one-half car of loads as he had empties in his train, and at F he set out one-half plus one-half car of his remaining empties and picked up one-half plus one-half car of empties still in his train. He then found he had but one empty left. How many empties did he start with? How many loads did he pick up?

Fritz Gannon, Helena, Montana, who has kindly contributed so many good ones, send this

(24) A, B, and C, are stations on a trunk line, A being the east end of the division, C the west end, and B lies between. Three-eighths of the distance from A to B equals two-fifths of the distance from B to C. Train No 1, traveling west leaves A at twelve o'clock noon. Train No. 2, traveling east, leaves C also at noon. Until the hour-hand and minute-hand are exactly opposite between twelve and one o'clock, No. 1 travels at the speed of 40 miles an hour. No. 1's speed is then increased, so that by the time the hour and minute-hands are together between one and two o'clock No. 1 has traveled one-twentieth as far again as if her speed had been kept at 40 miles an hour. When the hour and minute-hands come next together between 2 and 3 P.M. No. 2, which has been traveling at a speed of 40 miles an hour, is exactly the same distance west of B that Train No. 1 would have traveled between noon and the time the hour-hand and minute-hand were first exactly opposite, if it had been going at the rate of 60 miles an hour. How far apart were the two trains at the time between two and three when both hands of the clock were together?

ANSWERS TO MARCH TEASERS.

(20) Car 1, 142857. Car 2, 285714. Car 3, 428571. Car 4, 571-428. Car 5, 714285. Car 6, 857142. Car 7, 999999.

(21) No. 1 [illegible] No. 2 [illegible] No. 3 [illegible]

(22) [illegible]

ON THE EDITORIAL CARPET.

Fresh Water from Our Readers Keeps the Feed Water in Our Think Tank from Getting Too Hot.

IF by any chance you should have missed J. E. Smith's "Observations of a Country Station Agent" in this number—and we don't think we have a reader so foolish as to let any one of Mr Smith's contributions go by—turn back and read it; if you have read it, perhaps a second perusal will not be amiss. We have had some experiences with cats in our wild career, but we think this is about the best cat story that ever came our way. It is the best, because the cat figures so intimately with the railroad. In the May number, Mr. Smith has a story just as funny about a dog, and we want to say right here that it isn't all easy running when the freight department tries to put an ordinary canine on the way-bill

This April number also contains the first half of an extremely interesting article, "The First Fight for a Railway." The attempt of the lawyer who tried to prove that an engine could not help slipping back, by multiplying the revolutions of the driving-wheel by the strokes of the piston, reminds us of the old story, but one that will stand repeating.

In a Michigan town, a saw-mill hand tried to run a locomotive into the roundhouse. He got it in too far, then reversed, and backed outside Then he ran her inside again, and again backed out. He kept this up so many times that the foreman finally said.

"When you get her in, why don't you keep her there?"

"I will," replied the gent of the saw-mill "if you will only close the door."

The second instalment of "The First Fight for a Railway," shows further the ludicrous efforts that were made to prevent the establishment of the railroad. It does not seem possible that human beings could have lived and worked so hard putting obstacles in the way of what has since proved to be the most remarkable innovation of the century. These articles show how active man has been in thwarting the world's greatest possibilities that some one else might be benefited.

In the May number, we will have another paper by John C. Thomson, on "The A. B. C. of Freight Rates," several graphic and thrilling narratives of trains that have raced against death, and another article dealing with some of the queerest happenings ever known to railroad men. Also, Walter Gardner Seaver, whose roundhouse tales have brought us so much merriment, will begin the first of three papers, "The Railroad Builders" These are intimate stories of the first men who built our Western roads, and in them we expect many an old-timer will recognize friends of former days; men who worked with them, sharing some of the hardest as well as the jolliest days of their lives

R. M. West will contribute another frontier story. It is a graphic account of one of the soldiers of old Troop M, which saw so much duty forty years ago, who was captured by the Cheyennes

The recent hold-up of the Overland Limited in Utah has been thoroughly investigated and will be added to our well-known series, "Great American Train Robberies"

The fiction is up to the highest point in the gage. There will a bunch of stories of the sort that you are accustomed to look for in THE RAILROAD MAN'S MAGAZINE. Some of the stories are the strong, gripping narratives of real men; others are instilled with deep, human emotion, and others contain that rarest of all fiction elements—humor

Our old friends, Honk and Horace, will tell of their triumphal return to Valhalla. J. R. Stafford will contribute a new story entitled, "Compton's Train Robbery." E. W. Cooley's "When Grimm Got Busy," and MacDuffie Martin's "Moraney's Mule," are on the schedule

We are printing in this number of The Carpet a few of the letters that have come to us since the last issue went to press. We wish that it were possible to give space to every letter that comes to this office, because nearly every one contains something of interest to railroaders. The space is limited, however, and we can only select a few, but we wish all our readers to know that nothing pleases us so much as to hear from them Whether it is a brickbat or a bouquet, a rose or a thorn—let us hear from you

We are still looking for some good, active, true stories of the rail, between two and three thousand words in length. If you can write one, send it to us for examination; but remember, the principal force of such a story is either action or the record of some unusual happening.

We wish to say a word about the old-time railroad poems which have become so popular in their regular corner in the The Carpet. Those of our readers who send these old treasures will confer a great favor on us, if, whenever it is possible, they will also send the name of the author

and the publication from which the poem was taken. Then the proper recognition may be made, and all will be happy.

With the semaphore in the "clear" position, our May special is ready to make the grade. May the only stop be made at "¶."

'PHONE VS. TELEGRAPH.

THE following is taken from the records of a meeting of one of the divisions of the Order of Railroad Telegraphers of the Canadian Pacific Railway as reported in *The Railroad Telegrapher:*

Our regular monthly meeting was held yesterday in the new lodge-room in the Empire at Brandon, Manitoba, with local chairman, Bro. M. H. Simpson, presiding, and a large number present. Considerable business was transacted, and our chairman, so well and favorably known, was so strongly urged upon to continue for another term that he finally consented to serve.

He called attention to an article in the December issue of THE RAILROAD MAN'S MAGAZINE, of New York, headed "Despatching Trains by Telephone," and what the Western Electric Company say about telegraphers, their scarcity, and the Telegrapher's Organization, and advised them to read it. He contended that it is not only necessary to elect the best element as officers of the Order, but we must get them in the Legislature, in the Senate, and in other positions where laws are made

As the demand regulates prices on articles of purchase, it should do the same in regard to salary when there was a scarcity of telegraphers. The new schedule which went into effect last July, is one of the best and most carefully prepared I ever saw, although it does give the agent a decided ruling over the telegrapher.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN John C. Thomson's article, "Despatching Trains by Telephone," you state that, "if the telegraphers fear that the telephone will eventually obliterate them, they alone hold this view," also, that it will no more displace the telegraph than "the U. S. mail would go out of existence"

I am a telegrapher of eight years' experience and fully agree with your latter statement, for I have worked as telephone operator, handling train-orders and other matter pertaining to the despatching of trains, and ask your permission to take a few exceptions to Mr. Thomson's article.

If any of my brother telegraphers fear the telephone has the advantage over the telegraph in the movement of trains, it is because they have not been unfortunate enough to have had the practical experience of working with the telephone for the despatching of trains.

In regard to Mr. Thomson's article, you state editorially that you sincerely believe in the impartiality of his presentation of the subject. I beg to differ with you

Mr. Thomson says the 'phone is faster. Of course, an operator can talk much faster than he can telegraph, but can he write down conversation any faster than he could receiving from the telegraph? No, because any telegrapher, with a very few exceptions, can keep a fast penman on the jump, or "under the table."

The following conversation took place a short time ago between a despatcher and an operator to whom he was trying to give a "slow" order on the phone.

Despatcher.—"Copy a slow. Order No. 25—two, five, (spelt out) to C. and E. all west. Paris. Period. Lookout (spelt out)."

Operator.—"Wait a minute. Now, what's that, go ahead, 'period.'"

Despatcher. "Period, l-o-o-k-o-u-t (lookout) f-o-r (for) cattle c-a—"

Operator.—"What's that after 'lookout'?"

Despatcher.—"Lookout f-o-r (for) cattle, c-a-t-t-l-e."

Operator.—"I can't get you. What's that word after 'for'?"

Despatcher. "It's cattle, c-a-t-t-l-e, cattle."

Operator.—"Break, I don't get you, what is that word after, 'lookout for'?"

Despatcher.—(His patience about all in) "C-A-T T-L-E, cattle! Do you get that?"

Operator.—"Hallo, despatcher, I lost you What's that after 'lookout for'?"

Despatcher.—"Didn't you ever see a cow, stock, bulls, yearlings, steers, cows—c-a-t-t-l-e, cattle—do you know what that is?"

Operator.—"Oh! All right, go ahead, 'cattle.'"

The despatcher managed to get through the rest of the order, which was, "Look out for cattle on the track between Paris and Blank"

In sending this order by telegraph, one spelling would have been sufficient and the order would have been repeated and "O. K.'d" in one-tenth the time

In stormy weather, the telephone is unsafe, and when, in the best of weather, figures are hard to distinguish, even with the additional spelling, which is a great time lost. You can't make much distinction between "twenty" and "forty" or "thirty," even when they are spelled out—the letters sound so much alike.

"It opens a channel to railroad employees injured in other lines of work," Mr. Thomson says. He should have said that it opens a channel where a disabled employee gets a chance to operate a telephone to receive orders, thereby risking his liberty for a few years, should he make a mistake in copying an order, which is very easy with the telephone

I will not gainsay that the telephone is a great invention, but it will never do for despatching trains under the standard train-order system, where so many figures and letters are used, and in such a way that confusion on the telephone can never be overcome.

In probably twenty or thirty years of experimenting, we will eventually be able to use the telephone for despatching trains, provided some plan other than the train-order system is established.—"Z," Oakesdale, Washington.

GLAD TIDINGS.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I WISH to express my sincere and heartfelt thanks for your great kindness in aiding me through your valuable magazine, in locating my father, Adam Smith, who is in Elk-

hart, alive and well, and from whom I had a letter to-day, expressing his delight in coming of my whereabouts through a friend of his also an enthusiastic reader of your grand book.

Also, I wish you to thank the following gentlemen through your magazine, from whom I had letters telling me of his possible address

F. J. Flynn, 6109 Wabash Avenue, Chicago; M O'Dowd, 155 State Street, Elkhart, Indiana F. L. Kelsey, 1004 Monroe Street, Elkhart, Indiana; R. C. Hurst, 1013 South Second Street, Elkhart, Indiana, and all others who may have interested themselves in my behalf.

Again expressing my sincere thanks to you and the above mentioned, and wishing THE RAILROAD MAN'S MAGAZINE every success of which such a valuable publication is justly deserving, I beg to remain,

A. ED. SMITH,
233 Livingston Avenue, Columbus, Ohio

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I AM very glad to inform you that your publication was the direct means of bringing a letter from my father. I am very thankful to you for the interest you showed in my case, but words seem empty. How I am ever going to thank you is yet to be determined; yet I think you can understand just how I feel after seventeen years of silence. Again thanking you for your valuable assistance, I am respectfully yours,

ELSIE C. TRAPP,
1823 N Madison Avenue, Peoria, Illinois

AMONG THE MISSING.

IF W. C. M. sees this paragraph, will he please return at once to Tipton, Indiana. His mother is sick and wants him.

Any one knowing the whereabouts of W. J. Malvy will confer an everlasting favor on a relative by writing to her at 1435 Washington Street, Denver, Colorado.

SOME LANTERN RAYS.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

IN replying to "L. E., Garber, Missouri," question 4, in your February number, you appear to misunderstand the question, "Is it safe for an operator to recopy train-orders?"

I shall consider it a favor to reply to this very important question. There are two ways of recopying train-orders

1. The inexperienced man, or beginner, in receiving train orders from the despatcher is liable to take a poor copy by reason of nervousness, or through his inability to receive and write down fast sending. Hence he may be tempted, after repeating the order and receiving the despatcher's "O K," to make a new copy to display his best handwriting. This procedure consigns the copy received from the despatcher, to the waste-basket. This plan is dangerous and must not only be discouraged, but positively forbidden. The writer knows of an instance where two passenger-trains running at high speed collided owing to an operator recopying the train-order his despatcher had sent him and inadvertently inserting the wrong meeting-point in so doing. Several persons were killed or injured in the wreck and the property loss was very heavy. The better plan is for the operator to issue the original copy to trainmen, even if it is not written as neatly as he is capable of writing, remembering that the inexperienced of to-day who is careful is the old-timer of to-morrow, whose accurate work and neat penmanship are known all over the division.

2. An operator having received a train-order, may find that he has insufficient copies for all concerned. This may occur when trains are tied up by floods, washouts, or wrecks. In this instance, he should set up the required number of extra copies, place his original "correct copy" thereon, and with stylus or hard pencil, trace each and every letter and figure. This will avoid any errors and his extra copies so taken will be a facsimile of the original.

In further reply to L. E., relative to whistle-signals: On the Bessemer and Lake Erie Railroad, the passenger engineer's reply to the conductor's or brakeman's signal for a flag-stop is three short blasts of the whistle.—C. M. GRACE, Pittsburgh, Pennsylvania

The number of letters received corresponding to Mr Grace's version of the three short blasts of the whistle, leads us to acknowledge our error and to state that this customary reply is in use on a good many railroads

ANSWERS TO CERTAIN SIGNALS.

HANNAH ROGERS, Kansas City.—The statement regarding hard and soft coal made by John C. Thomson in "The A. B. C. of Railroading" in our February number, was, as that writer distinctly stated, simply used as an example and not as a matter of fact.

James Whittier, Los Angeles, California.—If the "Preacher and the Bear" is a railroad song, we will be glad to have our readers send us the words. We only publish songs and poems relating to railroads. None others are good enough for us to use. "Casey Jones" appeared in the July, 1910, issue.

K. C., Woodstock, Pennsylvania.—You win. The first wooden railroad in the United States was built in Ridley Township, Pennsylvania. The first iron railroad in the United States at Quincy, Massachusetts.

WHAT WE DON'T KNOW.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I HAVE before me your February number, and note with contempt the extreme ignorance you are forcing on the public, who are inveigled into buying your book by the deceptively attractive red cover.

Now, you may be pretty wise as far as magazines go, but, there is whole lot of things you don't know about a railroad, and I am discharging a self-imposed duty in telling you.

Now, when you started out in this magazine business, you should have endeavored to get a *general* education, as I did. I know all about railroading, and you may think I don't know anything about books, but I'll fool you some before I get through with this. I have never had any actual experience in running a magazine, but I have taken a correspondence course, and I know my business Why don't you take one on railroading? It would be a great benefit to you in your present vocation.

You state in your magazine that there is no such whistle-signal as three short toots of the whistle. There most certainly is. Do you understand? There IS

If you want positive convincing proof of this, get aboard of the Q. T. Trier on the D. M. Q and T., where they employ orators (the badge says "Porter"). After you are located in a seat, get comfortably settled for a couple of hours and "shut-eye" between the place where you got on, and the blind siding where you *want* to get off, and the said orator will declaim in a loud camp-meeting voice that the next stop is—some place where nobody gets off—and continues to iterate and reiterate the fact until everybody wakes up to find out that it isn't his station.

When the train gets near your blind siding—now listen—gets near *your* blind siding, the "orator" silently reaches for the bell-cord, or air-whistle cord, and pulls lustily *three times*, and the engineer says "toot! toot! TOOT!"

There's a lot more of things I want to tell you, but I just can't spare the time, such as how many trains can a train-despatcher despatch? Also, the Kinzua bridge. How about the Pecos High Bridge in Texas on the Ess Pee? I helped to build that bridge. It is 328 feet high and over 3,000 feet long.

My letter is meant as a gentle reminder of your weakness, and I will hereby mollify your injured pride by stating that I enjoy reading your magazine, sometimes because of the really good stories, and sometimes because of the humorous explanations and misapplied railroad terms.

SLIP BILL, alias ROUGH NECK.

TWO LETTERS.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

THE RAILROAD MAN'S MAGAZINE is my favorite, because of the true to nature railroad stories written by people who know what they are talking about, but I wish to take a "fall" out of Mr. Sumner Lucas, author of the story, "Scales that Weighed Not," in the December number. As Mr. Cal Stewart says, "I have the goods on him, sure."

The story states that a cool million dollars cash, needed by a bank to pay off a run, was placed in a suit-case, taken directly into an express car and locked in the safe by the messenger who was ignorant of the contents of the suit-case, and who was given a ten-dollar bill by the parties for his trouble, as if it were *his* safe and his express car.

The story goes on: An Italian party who was secreted in a coffin in the car came forth while the messenger was in the wash-room, extracted the suit-case, also a package of money from the safe, which the author plainly states was locked, and jumped from the car. The messenger returned, took a squint at the safe and the coffin, contracted several kinds of tremens and shakes, and jumped from the car. The Italian person was rounded up by a clever detective, the money recovered, and everyone made happy—but—

I would like to be shown the suit-case in which a million dollars' worth of cash could be packed in the denominations which a bank would need to pay off a run, also the express messenger who would accept such an apparently valuable shipment from strangers ignorant of the contents —minus way-bill and the usual routine of the express company, etc., etc.

Also, how this Italian secured the suit-case from the locked safe, taking it for granted that he could get out of that coffin, put in three suit-cases and replace the wax mask without attracting the messenger's attention.

And I would like to see the messenger who would become so afflicted through missing a package containing $50,000, and a look at a coffin-box, that he would desert his run without a chirp to any one.

Mr. Lucas's idea of an express messenger must be radically different from the brand we have in Montana. The plot of the story is good, but the details cannot "make the grade." Hoping Mr. Lucas will give us a real live one next time, I beg to remain.—W. C. ERTHER, Baker, Montana.

Immediately after reading Mr. Erther's letter, we forwarded it to Mr. Lucas, and received the following reply:

EDITOR, THE RAILROAD MAN'S MAGAZINE:

NEVER having had $1,000,000 spot cash in my pocket at any one time, I cannot tell Mr. Erther just how much room it takes up, for fiction writers, like railroaders, have plenty of room in a hollow tooth for all their surplus cash. But, many a time I have carried $50,000 in bills in a side-pocket of my coat, and with my good, old sawed-off .45 in the other, for I lived nearly thirty years west of the Big Muddy.

This was when I was a bank-clerk, some years ago, and, as I remember what real money looks like, I don't think I would have much trouble in packing even $2,000,000 in this old suit-case of mine

Let Mr. Erther figure it out for himself; $50,000 in bills that a bank would use to stop a run takes up about as much room as a common brick-bat, and the inside measurements of my suit-case are 7 x 14 x 28 inches. I think I could get twenty such bricks into it—if some one gave me a reasonable chance.

During a run, little accounts that are paid in five-dollar bills do not trouble a bank much; it's the big "explosive" accounts that must be met with $100, $500 and $1,000-bills that are dangerous. Speaking of such bills, I have carried $5,000 to $10,000 in my vest-pocket, going from bank to bank.

Even in gold, it might interest Mr. Erther to know that my suit-case, if run full of gold (cast solid) would weigh about 1,900 pounds and be worth about $600,000. Just how many five-dollar gold pieces it would take to fill it, is more than I am prepared to estimate. At a rough guess

I should say over $100,000 each. So, when it comes down to mere $100 or $1,000-bills, the matter is easy.

Mr Erther must remember that fiction, by the way is neither mathematics nor history. To follow his rule in writing fiction would rob us first jump of Hugo, Dickens, Scott, Cooper, Kipling, Shakespeare, and—myself! No rifle ever shot like Old Leather Stocking's, no ghost ever made disorderly remarks in Denmark, no naked boy ever held council on a moonlit rock with wolves and tigers in India's jungles—fact, are there any wolves in India?—so, when I had my express messenger do certain things, I was smoking only one pill in my pipe, where the bigger chaps, just mentioned, evidently inhaled a piece of dream-dope about the size of a barrel.

Actual facts are seldom dramatic; they have to be colored a bit to make good reading. There is nothing more exciting in the world than a newspaper man's life, for instance, and nothing duller to read about. Facts are to fiction, Mr Erther will find if he looks into the subject, about what lumber is to furniture, or coal, iron, and water to an engine. If he will glance at the first picture at hand, he will see that practically nothing in it is drawn according to the right comparative size; one man, "near," is ten times as large as another, "farther away."

The rails never come together in actual railroad life, although they are always shown so in a picture. 'Tis much the same in a story, for a story is only a picture painted with words.

As for the coffin and corpse game, that has been done many times in actual life, usually in getting out of prisons.

If any man wants straight facts, and wants to see how uninteresting exciting events can be in print when glued to what actually did and did not happen, let him send for a copy of the official records for a year of the Northwest Canadian Police, or drop into any convenient Montana police headquarters or fire department, and read the official accounts for an hour. He will yawn in ten minutes, and take up THE RAILROAD MAN'S MAGAZINE to find something interesting, even if it is about so dull a matter as $1,000,000 —SUMNER LUCAS.

FROM THE FIRING LINE.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

HAVING been a constant reader of your magazine for a long time, I will endeavor to write you a few words and thank you for myself and in behalf of the other boys here with me, for the enjoyment we have derived from its pages. I do not believe that there is a place where your magazine is appreciated any more than—on this dot on the world's map. The evenings drag mighty slow for us on account of our being alone the majority of the time. This letter has a long division to run over, and it will be in luck if it doesn't hit an open switch or a storage-spar before it gets to you.

I followed the iron trail for fifteen years, have seen a good many ups and downs, and have had my time on the up-track for repairs, but one of the happiest moments I know of was when I received my first copy of your magazine. I had been in this wilderness nearly five years then, and reading your book seemed to revive the jolly times I had while on railroads in the States —A. B. EXLINE, Sliolo, Philippine Islands

OLD-TIME POEMS.

PAPA'S LATE TRAIN

BY MRS. GERTIE JONES.

Copyright, 1892, by Charlie D. Tillman, Atlanta, Ga.

A LITTLE one tossed on a bed of pain,
At the close of a sad, sad day,
The angel of death was hovering near
To bear her sweet spirit away.
But with dim eyes fixed on the old clock she'd
She counted the moments as they went by
And with plaintive yearning and trembling cry
Said "Papa will be too late!
Oh, papa will be too late! Oh, papa will be too late!

"His train was due at seven, mama,
And now it is nearly eight,
I wanted to kiss my papa good-by,
I'm afraid he will be too late."
Of death's icy touch she had no fear,
Her kind loving Savior seemed so near;
Her thoughts were all for her papa dear,
Oh, would he be too late?
Oh, would he be too late? Oh, would he be too late?

Swift over the rails through the gloom of the night,
An engine came thund'ring down,
An hour behind as the wheels stood still,
'Mid the glimmering lights of the town
The engineer rushed home with a trouble deep,
And knelt by the cot, but too stricken to weep,
He had missed the kiss of his darling's last sleep,
For papa had come too late
For papa had come too late For papa had come too late.

Death's train swiftly bore her sweet spirit away,
Ere her papa's late train moved in;
No union now of that heavenly land
With this one of trouble and sin
Connection lost by an hour's delay,
The accepted time had passed away;
Ah, sad the one who is left to say,
"I came too late, too late,
I came too late, too late I came too late, too late."

Oh! fathers, have you in that beautiful land,
Some treasured and innocent one,
Who, safe from the sorrows and cares of life,
Is waiting for papa to come?
Can it be that this earth is all your goal,
That you'll trifle with God and your own soul,
And be, as years of eternity roll,
Forever and ever too late?
Forever and ever too late? Forever and ever too late?

HOW AN ENGINEER WON HIS BRIDE.

AN Engineer's Story" in form regulation
I ain't going ter tell—I am not cruel-hearted
This story, in kind, is the first since creation
Upon its long journey o' mysteries started.

I loved Sallie Jenkins—a name that's not takin'.
With people what hanker for poetry names;
Twas the gal, not 'er name, sir, that first did awaken
Affection in me, an' enkindled love's flames.

We met, an' as soon as her purty eyes hit me,
I felt my heart jump, like a feller in a doze,
I says, "Thar's a gal what'll jes' 'zackly fit me,
I'll hev 'er no matter what troubles oppose."

I found she was willin', but then her ole daddy
He took down his gun from the garret, an' said
If ever I 'tempted to take her, he had me—
He'd draw back the hammer, so I would go dead

I knowed he would do it, yes, 'cause the old party
Hed won much renown fer sich innocent capers.
His appetite allers fer fightin' was hearty,
'N much he hed done I hed read in the papers.

But fortune it always smiles out on two lovers,
I rested fer things ter develop themselves.
Good luck in the cloud that affrights us oft hovers,
Success in calamity's house often dwells.

One evenin' at dusk, when the moon was up creepin',
My train near her home was a chargin' with might;
Ahead, near the track, there was sumthin' a leapin',
Then a form of a woman grew quick on my sight!

She seemed all unconscious of what she was doin';
She heeded no whistle — stepped right on the track;
Her form to the rails soon the wheels would be gluin
Unless by a miracle she was jerked back!

One chance in a thousand! Reversing the lever,
An' makin' a leap an' a grab at one time,
I landed her over the bank in a quiver
Of terror and gladness—that sweet gal o' mine!

Next day all the papers was full of the story;
"The brave engineer," was the idol of all.
Her old dad was on me—his eyes no more gory -
He hugged me, while tears from his whiskers did fall!

And now for pure fact in this awful narration—
Fer since we are married the public may scoff—
That job was put up at that sharp gal's dictation,
When I leaped to save her, she was twenty feet off!—*James Noel Johnston.*

I WANT TO GO TO MORROW.

I STARTED on a journey just about a week ago,
For the little town of Morrow, in the State of Ohio
I never was a traveler, and really didn't know
That Morrow had been ridiculed a century or so
I went down to the depot for my ticket and applied
For the tips regarding Morrow, not expecting to be guyed.
Said I, "My friend, I want to go to Morrow and return
Not later than to-morrow, for I haven't time to burn"
Said he to me, "Now let me see if I have heard you right,
You want to go to Morrow and come back to-morrow night.
You should have gone to Morrow yesterday and back to-day,
For if you started yesterday to Morrow, don't you see,
You could have got to Morrow and return to-day at three.
The train that started yesterday—now understand me right—
To-day it gets to Morrow, and returns to-morrow night."

Said I, "My boy, it seems to me you're talking through your hat,
Is there a town named Morrow on your line? Now tell me that."
"There is," said he, "and take from me a quiet little tip—
To go from here to Morrow is a fourteen-hour trip.
The train that goes to Morrow leaves to-day, eight-thirty-five;
Half after ten to-morrow is the time it should arrive
Now if from here to Morrow is a fourteen-hour jump,
Can you go to-day to Morrow and come back to-day, you chump?"

Said I, "I want to go to Morrow; can I go to-day
And get to Morrow by to-night, if there is no delay?"
"Well, well," said he, "explain to me and I've no more to say;
Can you go anywhere to-morrow and come back to-day?
For if to-day you'd get to Morrow, surely you'll agree
You should have started not to-day, but yesterday, you see.
So if you start to Morrow, leaving here to-day, you're flat,
You won't get in to Morrow till the day that follows that

"Now if you start to-day to Morrow, it's a cinch you'll land
To-morrow into Morrow, not to-day, you understand
For the train to-day to Morrow, if the schedule is right,
Will get you into Morrow by about to-morrow night."
Said I, "I guess you know it all, but kindly let me say,
How can I go to Morrow if I leave the town to-day?"
Said he, "You cannot go to Morrow any more to-day,
For the train that goes to Morrow is a mile upon its way."

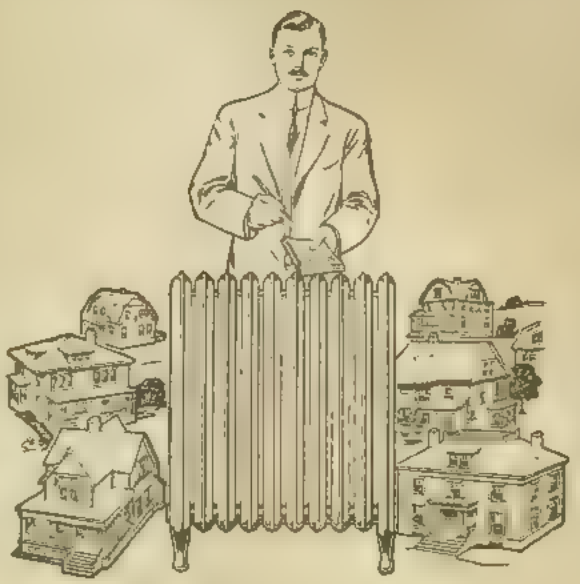
FINALE

I was so disappointed I was mad enough to swear;
The train had gone to Morrow and had left me standing there.
The man was right in telling me I was a howling jay;
I didn't go to Morrow, so I guess I'll go to-day.

You'll like it—it's well heated!

You will find thousands of different kinds and sizes of houses offered for rent or sale, but there is only one kind of true heating comfort which will fit any house or building and make it a delightful place to live in and work in. That way is with

AMERICAN RADIATORS & IDEAL BOILERS



Ask the man behind the real estate proposition: "How is it heated?"

Every real estate agent, every large property owner, will tell you that the one convincing recommendation for any building is, that it contains an IDEAL Boiler and AMERICAN Radiators.

Just as you see our advertisements everywhere, so you'll find these heating outfits being put in everywhere. We are building more and larger factories, for we know that with the great and lasting satisfaction and economies our outfits are giving (more than in the case of any other article entering into buildings or their furnishings) we shall receive a rapidly increasing volume of orders for IDEAL Boilers and AMERICAN Radiators. The high reputation that our heating outfits and our name now enjoy means that we must and shall stand back of IDEAL Boilers and AMERICAN Radiators and *guarantee them to the full.*

A No. 2-18 IDEAL Boiler and 270 ft. of 38-in. AMERICAN Radiators, costing when $135, were used to heat this cottage

A No. 4-24 IDEAL Boiler and 401 ft. of 38-in. AMERICAN Radiators, costing when $215 were used to heat this cottage

At these prices the goods can be had through any reputable, competent fitter. This does not include the cost of labor, pipe, valves, freight etc. which must be figured extra and varies according to the distance from the factories.

If you have a building to erect, to sell or to rent, you'll find it a splendid talking basis to say: "It's heated with an IDEAL Boiler and AMERICAN Radiators." It means that the tenant will be glad to pay you 10% to 15% more rent because of the comfort, health-protection, convenience, cleanliness, and fuel economy he will experience; or, in selling, you get back the full price paid for the outfit, which does not rust out or wear out.

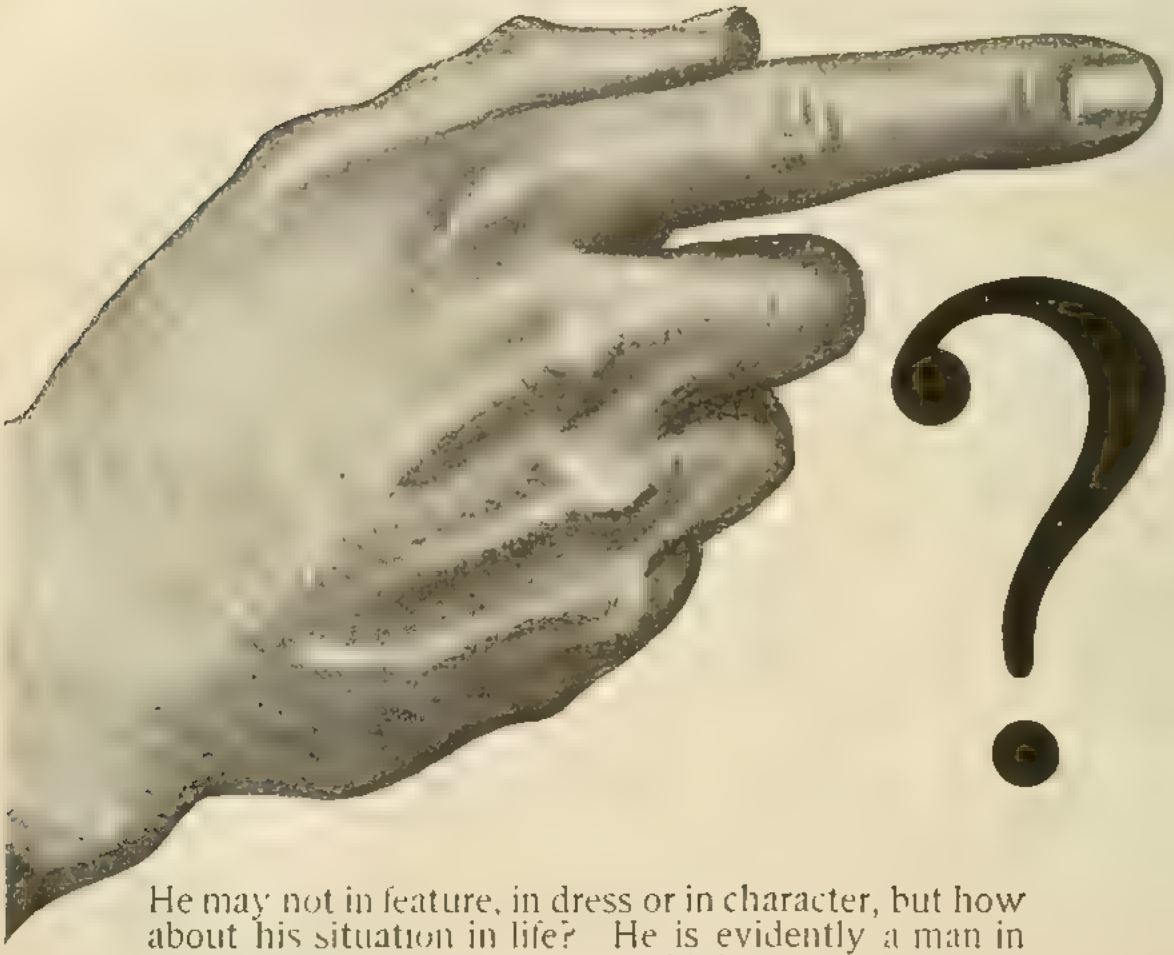
No tearing up necessary—now quickly put into any buildings—old or new—farm or city. Ask for our book "Heating Investments"—puts you under no obligation to buy. Write, 'phone or call *today.*

Showrooms in all large cities

AMERICAN RADIATOR COMPANY

Write to Dept. J Chicago

Does That Man Resemble You



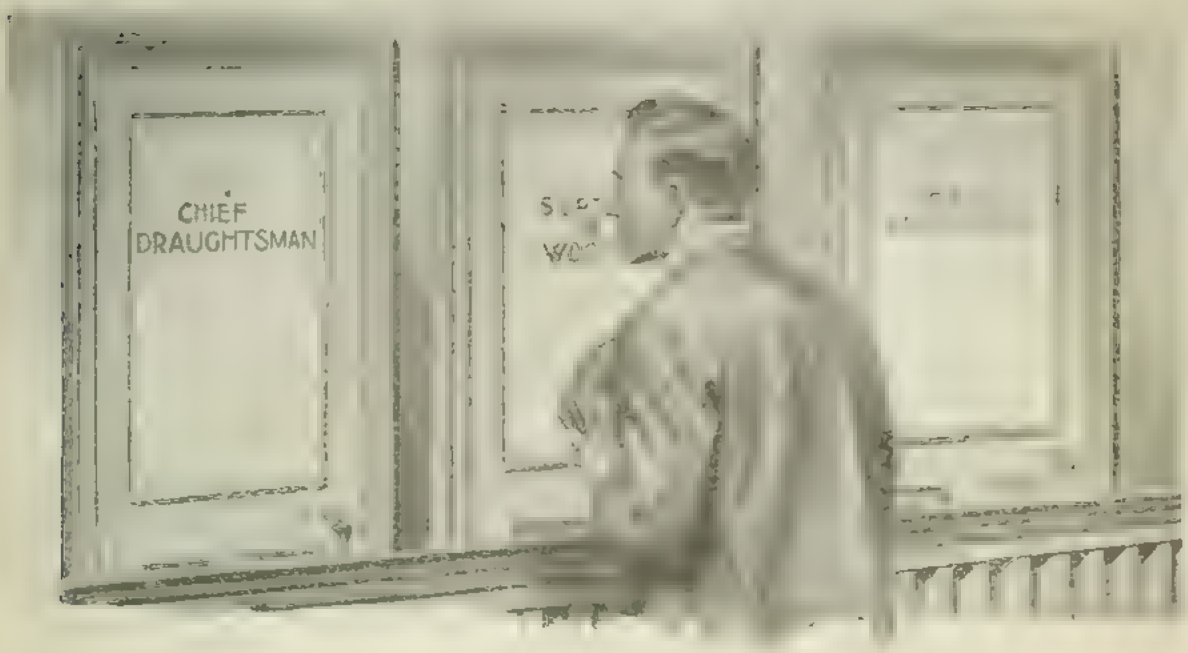
He may not in feature, in dress or in character, but how about his situation in life? He is evidently a man in poor position, but who seeks a higher occupation.

How can he enter the RIGHT door? Certainly not by influence—bluff—nor anything but actual training.

To secure this kind of training to-day, it is not necessary for a man to spend years of apprenticeship or college grinding. He can, on the other hand, without the expenditure of much money or the loss of time, qualify himself right at home, and at his present work, for the position he most desires.

On the opposite page is the story of just one man—out of many thousands—who has proved that all this is possible. Be sure to read it.

How He Entered The Door



At the time of enrolling in the Surveying and Mapping Course, I was doing odd jobs at electrical repairing and office work. At present, I am employed by the city of Corunna to inspect the installation of a new waterworks system. I have to inspect every piece of work before it is accepted by the city, and, in fact, have supervision of everything the contractor does. *My income now is about five times what it was when I began the study of my course.*

V. W. ROYCE, Corunna, Mich.

Regardless of where you live, what you do, or to what position you aspire, this man does resemble you, simply because he succeeded as you can succeed.

If you want to know how this can be accomplished, without regard to how much money you earn, where you live, or what you do, mark this coupon and mail it today. It will place you under no obligation of any kind, but will bring to you from the International Correspondence Schools the same kind of help that it did to other discouraged men.

INTERNATIONAL CORRESPONDENCE SCHOOLS,
Box 861, SCRANTON, PA.

Please explain, without further obligation on my part, how I can qualify for the position, or in the profession before which I have marked X

General Foreman	Electrical Engineer
R. R. Shop Foreman	Machine Designer
R. R. Traveling Eng.	Electrician
R. R. Fire'g Fireman	Mining Engineer
Locomotive Engineer	Mine Foreman
Air-Brake Instructor	Foreman Machinist
Air-Brake Inspector	Chemist
Air-Brake Repairman	Assayer
Mechanical Engineer	Architect
Mechanical Draftsman	Bookkeeper
R.R. Construction Eng.	Stenographer
Surveyor	Advertising Man
Civil Engineer	Automobile Running
Banking	Concrete Construction

Name _____

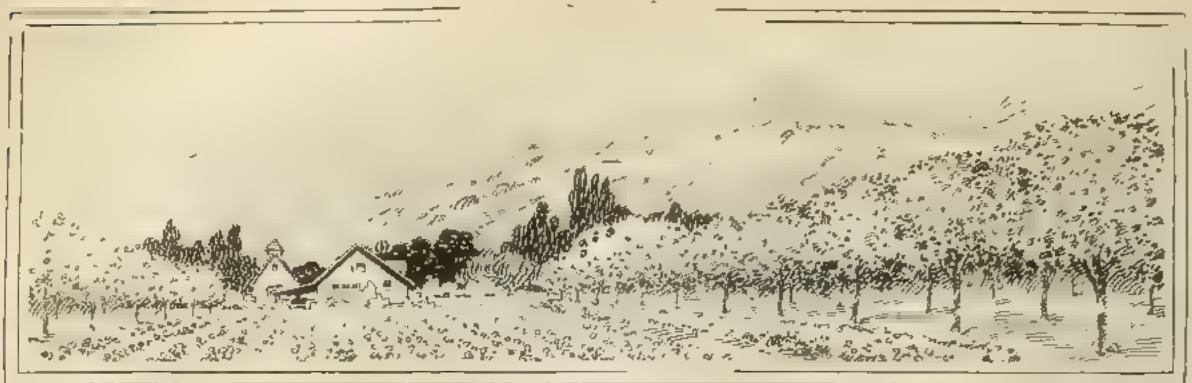
Employed by _____ R. R.

Employed as _____

Street and No. _____

City _____ State _____

3-'09



Railroad Men! PUT YOUR SAVINGS IN A SMALL FARM

Insure a Delightful Home and an Adequate Income for Your Family and Yourself When You Retire from Railroading.

Let Your Farm Be Your Savings Bank

It is better to put your money in land that is increasing in value every day than it is to put it in the bank.

There are thousands of acres of orchard and fruit lands out in the Union-Southern Pacific Country, which, if properly developed, will give you an ample income for the remainder of your life.

These lands can still be bought at reasonable prices, but their value is increasing every day.

A three acre orchard at Hood River, Ore., produced $3,801.36 in one year.

From 48 acres near Medford, Ore., the Pear Crop brought $40,000.

The yearly net proceeds from ten acres in this bounteous country have frequently been between $3,000 and $6,000.

The 1910 Fruit Harvest in the Pacific Northwest Alone Represented More Than $50,000,000

Railroad men, merchants, bankers men from every walk in life have gone to this great country of health and prosperity.

Investigate Now! Take advantage of the splendid opportunities for investment, insure your future independence and a delightful home in the beautiful Union-Southern Pacific Country.

Write TODAY for unbiased facts and detailed information as to locations, prices, etc. Address

Union-Southern Pacific

Standard Road of the West
Electric Block Signals

Homeseekers Information Bureau,

Room 2166 Bee Building · **Omaha, Nebraska**

The Whole Family

May safely drink and enjoy

POSTUM

BECAUSE, when properly brewed (according to directions) it is pleasing to the taste.

BECAUSE, it contains no coffee or other harmful substance.

BECAUSE, it is made of clean, hard wheat, including the phosphate of potash (grown in the grain) for supplying the growing brain and nerve cells in the child, and replacing the waste of cells from the activities of adult life.

The whole family can make a distinct gain if they care to.

"There's a Reason"

Postum Cereal Company, Limited,
Battle Creek, Mich., U. S. A.

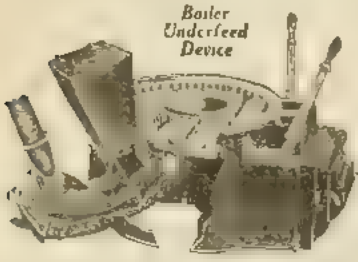
Canadian Postum Cereal Co., Limited,
Windsor, Ontario

UNDERFEED
HEATING SYSTEMS
End all Coal Bill Troubles

SEE the man. He's just eyed the big figures in his coal bill. He remembers the **great** price he pays for **little** heat. And he is **jumping** mad. Hundreds—just like him—took out unsatisfactory heating plants last summer, put in the Peck-Williamson **UNDERFEED** System, and enjoyed, during the past winter, clean, even heat at **least possible** cost. Houses are kept delightfully warm and tempers serenely even by the Underfeed heating way. A saving of **one-half** to **two-thirds** of Coal Bills is certain when you adopt

The Peck-Williamson Underfeed
HEATING SYSTEMS WARM AIR FURNACES - STEAM-HOT WATER BOILERS

The Underfeed coal burning way, is the logical, common sense way. Coal is *fed from below*. All fire is on top. Radiating surfaces are larger and *kept* hotter than in any other heater. Smoke and gases *wasted* in other heaters, *must* in the Underfeed—pass thru the flames, are consumed and make *more heat*. *Cheapest* slack and pea and buckwheat sizes of hard and soft coal yield as much clean, even heat as *highest* priced coal in other furnaces or boilers. Ask your dealer to give you the cost of each per ton. You save the difference. An UNDERFEED heating plant soon pays for itself and *keeps on saving*. The few ashes are removed by shaking the grate bar as in ordinary furnaces and boilers. Underfeed heaters require *little* attention. They *add* to the renting or selling value of any building.


Boiler Underfeed Device

The Gas Belt Land Co. at Pierre, S. D., chose Underfeed Boilers for the Armory of the Fourth Infantry, South Dakota National Guard. They write:

"They have proved extremely economical and fulfilled every claim made for them in the way of saving in coal bills, are easy to care for and require very little attention to develop the necessary amount of heat."

For homes, banks, churches or buildings of any sort, the results are happily the same. Let us send you an Underfeed Furnace Booklet illustrating dozens of many testimonials, or our Special Catalog of Underfeed Steam and Water Boilers both FREE. Heating Plans of our Engineering Corps are FREE. Write today, giving name of local dealer with whom you'd prefer to deal.

Furnace Underfeed Device

THE PECK-WILLIAMSON CO. 386 W. Fifth St., CINCINNATI, O.

Furnace Dealers, Plumbers and Hardware Dealers—Write Today for our 1911 Selling Plans.

Send Coupon Today and Learn how to

SAVE 1/2 to 2/3 of your Coal Bill.

Fill in, cut out and mail TODAY.

THE PECK-WILLIAMSON CO., 386 W. Fifth Street, Cincinnati, Ohio

I would like to know *more* about how to cut down the cost of my Coal Bills from 40% to 60%. Send me—FREE—

UNDERFEED Furnace Booklet .....
Boiler Booklet .....

(Indicate by X Booklet you desire

Name. ..... *Street* .....

Postoffice ..... *State* .....

..... Name dealer with whom you prefer to deal.

The only Solution: Get a better job

Are you "trying to make both ends meet" on a small, unsatisfactory salary? Are you one of the thousands of energetic, capable men whose days are spent in work not suited to their natural talents?

Then read this wonderful offer. We mean it and there is a fine chance for you if you improve it.

If you lack the time and the means to stop work and take a course of training, the American School will **lend you the cost of the training** you need and let you make your own terms for repaying us.

This is the greatest offer ever made to men who have "got it in them to rise," and we are prepared to help everyone who comes to us in earnest.

If you are willing to study for an hour every evening after working hours, willing to stick to it with the kind of persistence that wins, and without which nothing worth while is ever won; then you are on the right track

Check the coupon, mail it to us and we will explain fully our **"Deferred Tuition"** plan, how we will lend you the cost of the tuition, and allow you to pay us back when the increase in your yearly income equals the amount of the loan.

No Promotion—No Pay—that's what our **"Deferred Tuition" Scholarship means.** Send the coupon today and prepare for a **better job.**

AMERICAN SCHOOL OF CORRESPONDENCE
CHICAGO, U. S. A.

Opportunity Coupon

American School of Correspondence, Chicago, U. S. A.

Please send me your Bulletin and tell me how I can qualify for the position marked "X." R.R. Man's, 4-'11.

Book keeper	Draftsman
Stenographer	Architect
Accountant	Civil Engineer
Cost Accountant	Automobile Operator
Systematizer	Electrical Engineer
Certified Public Ac'nt	Mechanical Engineer
Auditor	Moving Picture Op'r
Business Manager	Steam Engineer
Commercial Law	Fire Insurance Eng'r
Reclamation Engineer	College Preparatory

NAME . . . . . .

ADDRESS . . . . . .

UNION · SUITS
SHIRTS · AND DRAWERS
ALL STYLES FOR · MEN · AND · BOYS

THE unique "Porosknit" fabric is knit and cut to give a true fit with not the slightest suggestion of bulkiness. Elastic for freedom of movement. Absorbent and ventilated for health and coolness. Fits the hard to fit. Satisfies every wearer.

"Porosknit" Union Suits do away with double thickness at the waist, and the downward "pull" of the drawers. No other union suits that fit have their lightness. Buy a suit today. You'll agree that you never knew such comfort as "Porosknit" gives.

To insure satisfaction, look for this label

TRADE MARK

FABRIC PAT DEC 12 1905

"Porosknit"

DESIGN PAT DEC 19 1905

REG. U.S. PAT. OFF

Refuse substitutes—get "Porosknit"

Two million men and boys wear "Porosknit" because they like it. Why not you?

For Men	All Styles Shirts and Drawers per garment	For Boys
50c		**25c**

Men's Union Suits	Any style	Boys' Union Suits
$1.00		**50c**

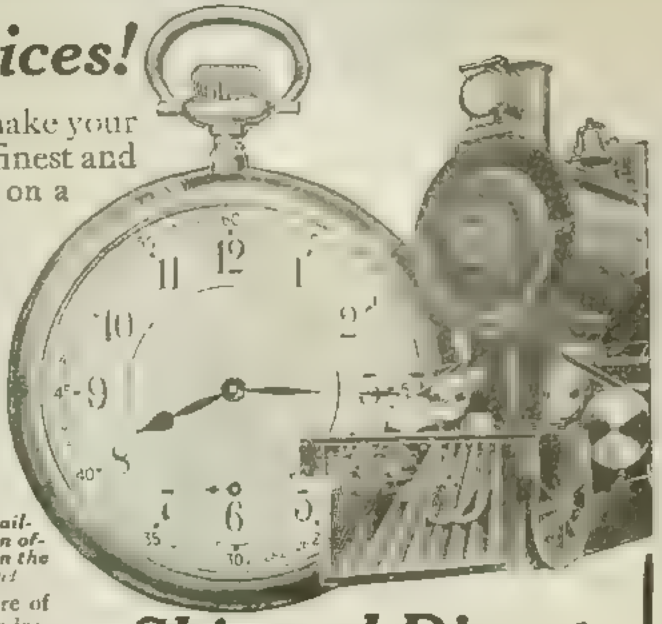
On sale in nearly every store you pass.
Write us for booklet showing all styles.

CHALMERS KNITTING COMPANY
43 Washington Street, Amsterdam, New York

Stupendous Offer

On Highest Grade Railroad Watches

Rock Bottom Prices!



HERE is your opportunity to make your selection from the world's finest and highest grades of *all* watches—and on a *stupendous rock bottom offer.*

No need now to pay a fabulous contract price in order to own the ***very best*** of watches! *Your choice* of makes distributed at the rock bottom (*one-half* or *one-third* the price you would assume)—thanks to the plan of the Independent Railway Watch Distributers.

Every watch listed in the Independent Railway Watch Distributers' booklet has been officially inspected and approved by every railroad in the United States, Canada and Mexico *Only the accurate watches are listed*

Only one per cent of the watches produced are of railroad grade, only a few famous top-notch grades You can take *your choice* of the famous grades on the rock bottom $3.50 a month offer.

You know how strict railway watch inspection has become, and that no watch with a flaw is allowed to be carried You know the enormous prices which you have been forced to pay for the very best of timepieces. Here is your opportunity to get a top-notch watch—your selection of brand—at the right price (No contract with jewelers, all price-boosting schemes eliminated, all the little extras cut off). ***We want you to join in at once with the Independent Railway Watch Distributers*** — and on this special offer we now allow railway men to get this rock bottom price on any watch you select while paying for it out of your monthly salary at the rate of

$3.50 a Month

Special Notice ***For the present these rock bottom prices and special terms of $3.50 a month made to railroad employes, will be allowed to others also Send the coupon We desire to reach railway men as quickly as possible, and believe that if the passengers on trains carry these watches, railway men will want them also.***

We want all railroad men to join in the Independent Railway Watch Distributers and *we want the general public to help us in pushing this cause.*

Wm. H. Charles, Secretary

Independent Railway Watch Distributers

2845 W. Nineteenth St., Dept. 1104 CHICAGO, ILL.

Shipped Direct

For Special Reasons *(and on this special offer)* the selected watches are offered direct on a rock bottom offer, or you can get besides the railroad watches specially listed by the distributing organization any other approved railroad watch in the country, from any of the factories, Illinois, Hamilton, Elgin, Waltham, Rockford—in fact, your choice of any railroad watches shipped on approval, with the distributors' guarantee in most cases with the wholesale jewelers profit and a half

Free Examination ***Watches are sent on approval, prepaid, without any money down, subject to inspection;*** to be returned at the Independent Railway Watch Distributers' expense if not wanted after inspection. Only the very finest timepieces sent out this way. *No obligations whatever to buy; watches sent absolutely on approval.*

A Booklet will be sent free to railroad men (and for the present a free [illegible] others) who sign this coupon. This booklet lists 79 railroads in the United States, Canada and Mexico which have officially approved and inspected all the kinds of watches listed by the distributers. The booklet quotes the *surprising* rock bottom prices and makes the terms of $3.50 a month on railway watches which for twenty years have been acknowledged the standard.

Send the Coupon Today

To the Independent Railway Watch Distributers
2845 19th St., Dept. 1104
CHICAGO, ILL.

Please send me your Railroad Watch Book free, listing rock bottom prices direct (also $3.50 a month terms).

NAME .....

ADDRESS .....

WITH its still greater improvements for 1911 the Indestructo Trunk offers *by far the greatest* trunk value on the market. Made in a variety of styles, including Men's, Women's, Steamer Trunks Hat Trunks Trousseau Trunks, etc

We've bettered the trunk in *many* ways—developed in the corners a doubly-reinforced construction that adds tremendously to strength—but not to weight. It is now canvas covered

"Government Bronze," same as specified by the U. S. Government, is used for all trimmings. That means long wear—no discolorations

Every 1911 Indestructo Trunk is lined, top and bottom, with pure, *red cedar*—fragrant—cleanly—moth-repelling

INDESTRUCTO

TRUNKS AND OTHER LUGGAGE

—are guaranteed for five years. That means *absolute protection* for the buyer, who, unless an expert, is practically helpless in selecting leather goods. The Indestructo stamp means that you are getting the most value possible—and that when we say a bag is made of a certain leather—such as walrus or seal—it is that leather *absolutely*.

Let your traveling equipment be Indestructo throughout. You will find Indestructo Bags Suit-cases, Hat Boxes, Thermos Cases, Golf Bags, etc., just as we have always guaranteed Indestructo Trunks

Indestructo Bags all have unbreakable three-ply Indestructo Veneer corners. They keep their shape. Our special identification-feature makes them practically non-stealable

All the popular black and russet leathers. Imported models—exclusive designs—beautifully lined and finished. $5 00 and up. Send for the full facts and description of the new Indestructo line.

National Veneer Products Co.

Station D 35, Mishawaka, Indiana

Velvet

THE SMOOTHEST TOBACCO

Golf—a dandy drive and then the long follow after the ball. Fill up your pipe with Velvet. It's a rattling good smoke—as smooth as you want the "green" to be. Velvet is made of Burley. Not any kind of Burley, but *the choice leaves of each plant.* It smokes cool and pleasant and there isn't a burn to a thousand pipefuls. Yes, there are lots of Burleys, but—you know the difference in taste between green and ripe fruit? Well, there's where Velvet differs from the other varieties. It's well cultivated—well cured and well mellowed. You'll realize the difference when you've smoked it. Go to your dealer and get a can today. Try it—if you doubt us.

Spaulding & Merrick
Chicago, Ill.

In a neat metal can

10 cents

At your dealer's or if he is sold out, send us the 10 cents. We'll send you a can to any address in the U. S. A

FROM NO. 4A FOLDING KODAK NEGATIVE.

Take a KODAK with you.

EASTMAN KODAK COMPANY,

Catalogue free at the dealers or by mail

ROCHESTER, N. Y., *The Kodak City.*

This Semi-Dress Shirt for R.R. Men

comes in a variety of neat patterns, light and dark, with two detached hand-turned collars or one attached soft collar and is ***cut coat style***—easy to put on and take off when you are tired, sweaty or in a hurry.

Extra features not found in other shirts include button at bottom of breast plait to keep flaps smooth, sleeve slit in side and reinforced against ripping. Button holes for attaching white cuffs.

If you have never worn the

Signal Coat Shirt

you have a comfort-treat in store. These shirts come in plain and polka dot percales like one shown here at $1.00 ($1.25 if expressed West of Missouri River) or in finer fabrics at $1.50.

They are cut on roomy lines, fit as though tailored-to-order and will outwear any shirt on the market at the price. The best value obtainable in a railroad man's shirt

Try a Couple at Our Risk

and prove our claims. Your dealer should have them, but if not, tell us his name and your size and we will send you a couple by express C.O.D. If you like them, pay express man. If not satisfactory, return at our expense.

State whether you want the $1.00 or $1.50 grade or write for folder showing swatches of patterns and giving full particulars.

Union Made

SIGNAL SHIRT

Trade Mark

Makers of Signal Work Clothes & Special Factory for Overalls and Coats

HILKER WIECHERS MFG. CO.

1252 Mound Ave. **Racine, Wis.**

Consider Your Shoes

and Make Sure that they are

GOODYEAR WELT

Shoes made on Goodyear Welt Machines are marked by comfort, durability and style.

They are *Smooth Inside;* because no thread penetrates the insole to tantalize the foot.

They are equal to shoes sewed by hand in the essential qualities you require, and can be bought at ⅓ the price.

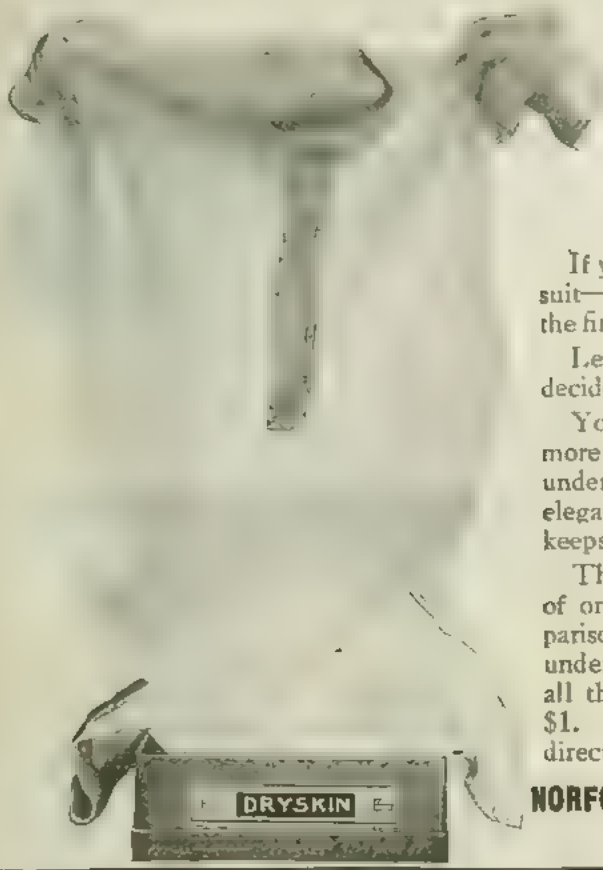
Only good material can be used in shoes made on the rapid machines of the Goodyear Welt System.

Write today for the following booklets which will be sent you without cost:

1. Contains an alphabetical list of over five hundred shoes sold under a special name or trade mark, made by the Goodyear Welt process.
2. Describes the Goodyear Welt process in detail and pictures the sixty marvelous machines employed.
3. "The Secret of the Shoe—An Industry Transformed." The true story of a great American achievement.
4. "An Industrial City." Illustrated descriptive of the great model factory of the United Shoe Machinery Company at Beverly, Massachusetts.

United Shoe Machinery Company, Boston, Mass.

WHEN you go out this spring in quest of underwear look at



DRYSKIN

CONDUCTIVE UNDERWEAR

If you haven't utter faith in it just buy a single suit—alternate it with your present underwear in the first sweltering hot weather that comes along.

Let your own sense of comfort and coolness decide.

You'll find "DRYSKIN" Underwear 50% more absorbent—therefore cooler than any underwear you ever wore. And it has all the elegance of fine linen—delights the eye and keeps the skin dry, sweet and cool.

This experiment costs you only $1, the price of ordinary underwear. Just make the comparison—then, into the discard with your other underwear; you'll want to wear "DRYSKIN" all the time. Single garments 50c, union suits $1. All styles. If not at your dealer's order direct, stating size.

NORFOLK HOSIERY & UNDERWEAR MILLS CO.
Norfolk, Va. and New York.

MULLINS PUNCTURE-PROOF STEEL BOATS CAN'T SINK

Amazing Prices this Year ***Handsome Book FREE***

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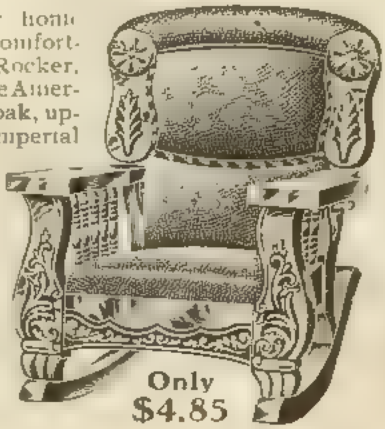

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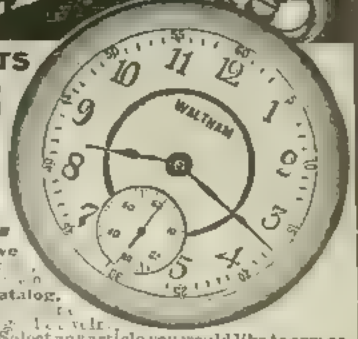

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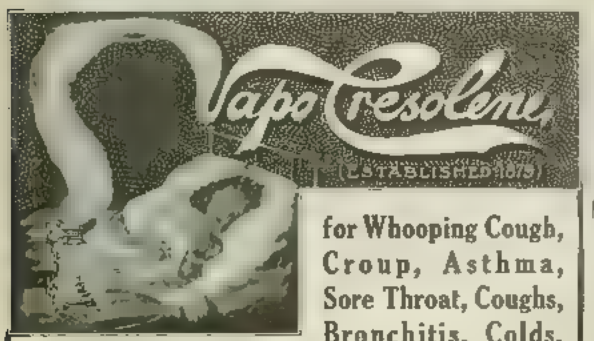

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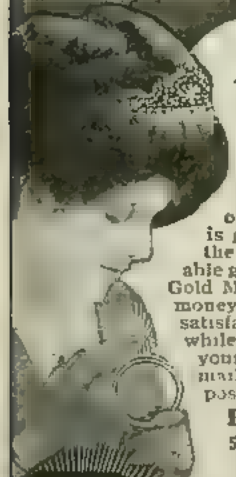

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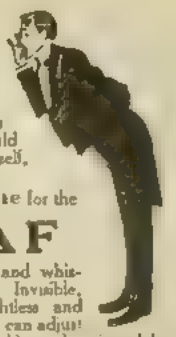

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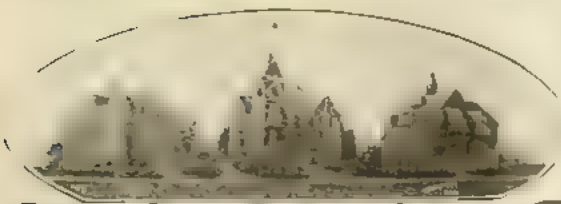

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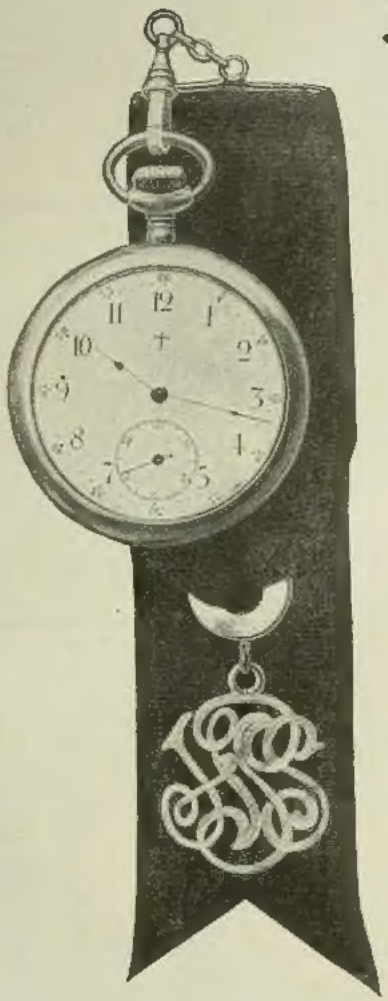

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